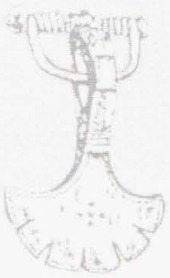
Anna Bitner-Wróblewska

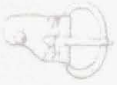
From Samland to Rogaland

East-West connections in the Baltic basin during the Early Migration Period

Państwowe Muzeum Archeologiczne
Stowarzyszenie Naukowe Archeologów Polskich

Warszawa 2001





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To my Father and Harald

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Preface

This study concerns the jewellery recorded in the large territory around the Baltic Sea. With such dispersed and extensive material I naturally owe thanks to many individuals and institutions for their help in getting to the final point of this work. I started my research under the guidance of my mentor, late Prof. Kazimierz Godłowski, whom I would like to thank very much. Valuable elucidation derived from discussions with him, especially concerning chronological problems of Late Roman and Migration Periods as well as the comprehensive remarks on the subject of my studies. Special thanks are due to my supervisor, Prof. Wojciech Nowakowski who allows me to disagree with him on many questions. This book is a revised edition of Ph.D. dissertation defended at the Institute of Archaeology Warsaw University in June 1999. I would like to thank very much my opponents, Prof. Ulla Lund Hansen, Prof. Magdalena Mączyńska and Prof. Jerzy Okulicz-Kozaryn, for their constructive remarks.

My long research travel around the Baltic Sea I naturally started from the Balt lands. I wish to acknowledge my colleagues from district museums in north-eastern Poland, who assisted me in studying the collections in Olsztyn, Białystok and Suwałki: Włodzimiera Ziemlińska-Odojowa M.A., Izabela Mellin-Wyczółkowska M.A., Izabela Mirkowska M.A., Mirosław Hoffmann Ph.D., Krystyna Chilmon-Bieńkowska M.A., Jerzy Siemaszko M.A., Jerzy Brzozowski M.A. My thanks are also due to Mirosław Pietrzak M.A. from Archaeological Museum in Gdańsk and to Prof. Wojciech Nowakowski and Paweł Szymański M.A. from Institute of Archaeology, Warsaw University.

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My studies in Scandinavia I started from Sweden, where special thanks are due to Asst. Prof. Bożena Wyszomirska-Werbart who kindly helped me in organising my stay at my hosting institution in Sweden, Lund University. I also wish to acknowledge other colleagues from Lund: particularly Prof. Lars Larsson, Prof. Jerzy Nalepa, Asst. Prof. Birgitta Hårdh, Mats Roslund Ph.D. and at that time visiting Prof. Helen Clark. I would like to thank Jan Peder Lamm Ph.D., Lena Thunmark-Nyhlén Ph.D. and Astrid Wexell Ph.D. from State Historical Museum in Stockholm; Gun Westholm

Ph.D. from Gotlands Fornsal in Visby; Eava Rajala Ph.D. and Mats Blohmé Ph.D. from Museum in Kalmar as well as Władysław Duczko Ph.D. from Department of Archaeology at Uppsala University.

Denmark was my next Scandinavian stop. I would especially like to thank Prof. Ulla Lund Hansen for access to her archive and inspiring discussion concerning phase C_3 and the beginning of Early Germanic Iron Age. I wish to express my warm thanks to Anne Nørgård Jørgensen Ph.D. and Lars Jørgensen Ph.D. who guided my first steps within Danish materials. Their hospitality and open house with Tina and later Mikael have always been my best "starting point" in Denmark, although Tina was completely unsuccessful in teaching me Danish. I should also like to express my thanks to Poul Otto Nielsen Ph.D. from National Museum in Copenhagen; Margrethe Watt Ph.D., Finn Olle Nielsen Ph.D., Hanne Wagnkilde M.A. and Henrik Vensild M.A. from Bornholm Museum in Rønne; Asst. Prof. Ulf Näsman, Karen Høilund Nielsen Ph.D., Jytte Ringtved Ph.D., Jørgen Ilkjær Ph.D. and Charlotte Fabech Ph.D. from Institute of Archaeology at Aarhus University; Jens N. Nielsen Ph.D., Erik Johansen Ph.D. and Peter Birkedahl Christensen Ph.D. from Historical Museum in Aalborg as well as Per Ethelberg Ph.D., Stine Wiell Ph.D., Orla Madsen Ph.D. and Lisbeth Christensen M.A. from Haderslev Museum.

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I would like to stress the great hospitality assisting me all about along the Baltic as well as North Sea coasts. Apart from the fascinating artefacts and inspiring research problems I have also found there some very good friends.

I am pleased to acknowledge a number of scholarships, which made possible such wide range studies. There was a scholarship from Polish Ministry of Culture and Art to the then Soviet Union, where I stayed in Russia, Lithuania and Latvia. The last two countries I was able to visit several times supported by my home institution, State Archaeological Museum in Warsaw. Swedish studies were possible thanks scholarships from Lund University and Crafoordska Foundation. A scholarship from Norwegian Research Council for Science and the Humanities (NAVF) made possible Norwegian research, while Foundation of Kazimierz Salewicz and Märit Jensen supported my Danish studies.

Apart from the research travels, my home institution, State Archaeological Museum in Warsaw, supported my study in the other ways, i.a., providing the possibility to prepare professional drawings. All of them were done by Lidia Kobylińska.

I am particularly grateful for the patience and skill with which Dorota Cyngot, M.A. has edited the present work. Finally, I should also like to express my obligation to Anna Kinecka who proofread this work in English.

Lastly, my warmest thanks are due to my late Father, to Wojtek and my siblings! Without their steady support this study would not have been possible.

Warszawa, December 1998 – July 2000

1. Introduction

"If you study Japanese art, you see a man who is undoubtedly wise, philosophic and intelligent, who spends his time how? In studying the distance between the earth and the moon? No. In studying the policy of Bismarck? No. He studies a single blade of grass. But this blade of grass leads him to draw every plant and then the seasons, the wide aspects of countryside, then animals, then the human figure. So he passes his life, and life is too short to do the whole."

Vincent van Gogh to his brother Theo, Arles 1888
[In] L. Stryk & T. Ikemoto, The Penguin Book of Zen Poetry, London 1977

Archaeological and methodological framework

The principal aim in this study is to present connections linking during the Early Migration Period Balt lands and their counterparts bordering the Baltic Sea. An attempt is made at establishing a more comprehensive perspective analysing the material occurring from Finland to Rogaland in west Norway and from Samland and Pomerania to the Lofoten islands. The Early Migration Period, the basic chronological unit under discussion here, cannot be understood as a chronological watershed in Balt-Scandinavian connections. Many issues addressed by the present work have a much larger chronological range, being rooted in the Late Roman Period or continuing into the subsequent phase. The emphasis on the Early Migration Period is intended to draw attention to the earlier origin of certain phenomena as well as to their scale in the period in question, the problems being earlier largely ignored.

The material is characterised by the presence of jewellery, especially brooches, which was chosen because of its substantial typological variation. It offers insight into both chronological and geographical variability, which further allows one to study the interchange between the workshops and populations around the Baltic Sea. The foundations for analyses were laid with the recording of over 1200 artefacts. These objects come from different contexts, mostly depending on the site of their discovery in the area of investigations. A special situation is that of the greater part of Balt lands which before the Second World War were under East Prussia (*Ostpreußen*). At that time it was one of the best-investigated areas in Central Europe, with a flourishing research centre at Königsberg, with a very rich collection of artefacts. A large part of them was destroyed during the war[1], together with the documentation, most of it, regrettably, unpublished (J. Jaskanis 1977: 239–249; W. Nowakowski 1986). The information which has survived is far from complete; very often all that we know is the list of finds from the site without any information about the closed assemblages. The other Balt lands, especially Lithuania and Latvia, produced a great number of graves filled with grave goods assigned to the Early Migration Period.

The Scandinavian material, excluding Norway, is dominated by stray finds of varying character. A part of them are single finds without context, including 19th century collections (Öland, Gotland)[2] partly, finds which are supposed

[1] A significant part of Prussia Sammlung from Königsberg survives in Berlin in the Museum für Vor- und Frühgeschichte unfortunately, mostly without labels and numbers. Prof. W. Menghin, Director of the museum, has set up a committee of which the author is now member, to work on the material.

[2] No newly-excavated grave finds from Gotland were analysed in this work as they are still being worked on.

to come from a determined context, because of the quantity in which they were found on quite a limited territory. For example, specimens recorded at Sorte Muld or Rytterbakken on Bornholm come from settlement areas. Rich grave finds from Norway are supplemented by a relatively small number of graves from other parts of Scandinavia. Some of these graves were excavated by amateurs in the second half of the 19th c. or beginnings of the 20th c., which resulted in mixing of grave assemblages (e.g. Møllebakken, grave 2 – see footnote 6).

Consequently, the area of research is not homogeneous as regards find situation, although a common feature appears to be incomplete archaeological sources lacking context or with scant information about the context. The nature of the material determines what can be investigated and how it can be investigated. Such material forces a very detailed morphological and stylistic analysis and clear typological classification, which are absolutely fundamental for any further investigation. As far as was possible the correspondence analysis was used. The main purpose of the present study is to make this material accessible to a wider-ranging analysis as well as to understand Balt-Scandinavian connections and to interpret the social development around the Baltic Sea.

Circumstances of discovery are not the only aspect of heterogeneity within the area of investigation. This broad territory differs in terms of ethnic identity, cultural tradition and tradition of research. In the Early Migration Period the Baltic basin was settled by Balt, Germanic and Finnish tribes. Their diverse cultures have been variously classified by scholars. The territory of the southern Baltic was divided into archaeological groups and cultures on the basis of complex similarities in burial practices, costume, weaponry, tools and pottery (to comp. the definition of "archaeological culture/group" – see K. Godłowski & J. K. Kozłowski 1976: 13–14; P. Kaczanowski & J. K. Kozłowski 1998: 28–29). The classification of Lithuanian, Latvian as well as Estonian and Finnish areas mostly bases on differences in burial custom although the former are also supplemented by differences in the set of artefacts. Lithuanian and Latvian archaeologists have combined this criterion with information from much later written sources and associating individual groups of finds with names of tribes.

Scandinavian scholars describe archaeological phenomena generally within the geographical context. However, some of them note the existence of regional groupings independent of natural, landscape barriers as south and east Scandinavia in Late Germanic Iron Age basing on geographical variation in the jewellery (see K. Høilund Nielsen 1991).

Last, but not least, are differences in chronological systems used by researchers on both sides of the Baltic Sea (see below in this Chapter). Different terminology further adds to the incompatibility of archaeological sources from this wide territory.

Cultural differentiation of the area of investigation combined with different methods of research necessitates the application of an operational form of the analysis of the archaeological data. Typological classification, stylistic and chronological analysis remain the main tools. Each category of ornaments is first analysed within its local context. The next step is to study them in an interregional perspective and see how they are related to each other. This makes it possible to demonstrate the evidence of east-west connections in the Baltic basin and to describe their character. But this would not be possible, if the method of comparison of so different areas had not been constructed. What is essentially new in this work, is the solution of the incompatibility problem of archaeological sources from both sides of the Baltic Sea.

The present study consists of four chapters. Chapter One introduces the main purpose of the work and discusses its methodological framework. A review is given also of the history of research together with a detailed presentation of chronological systems functioning in the area of investigation. The latter appears particularly important for any further studies, based on synchronous analyses of distribution in different territories. Chapters Two, Three and Four are constructed at once as

autonomous units containing an introduction, discussion of archaeological data and interpretation and as dependent units, one leading into the next in successive steps of comprehensive interpretation.

Chapter Two deals with the material, opening with a general outline of the cultural situation in the Baltic basin during Early Migration Period. Next, different categories of fibulae are presented in their typological and geographical variation. Each sub-chapter is constructed according to the scope offered by the archaeological sources. At times the stylistic analysis had to be allied and/or combined with cultural and historical analysis. The material itself suggests and imposes the optimum method for presenting the connections linking the populations bordering the Baltic Sea. All sub-chapters close with concluding remarks on the main typological, chronological and distribution aspects of individual ornament types.

Although Chapter Three discusses stamp ornamentation widespread in the Baltic basin during the Early Migration Period, stylistic analysis is closely associated with horizons of certain artefacts. All of these specimens, almost exclusively ornaments, are discussed according to their morphological and stylistic features as well as their archaeological and chronological context. Such analysis makes it possible to establish the relative chronological sequence of both Scandinavian and Balt artefacts including jewellery presented in the preceding chapter. This makes this material compatible and makes it possible to study the synchronous interchanges around the Baltic Sea.

The concluding Chapter Four is not a traditional summary. Drawing on the discussion in the preceding chapters it attempts to illuminate the main problems of social development on both sides of the Baltic. Finally, there are the references and the catalogue. The latter includes lists of finds (Appendices A–L) of brooch categories analysed in Chapter Two. The quantity of artefacts dictated the form of these appendices. Finally, the study is illustrated with figures, maps and plates.

The author hopes that the results of her study will serve as a starting point for a more constructive future dialogue among archaeologists from the both sides of the Baltic Sea.

History of research

The question of mutual contacts between Scandinavia and the south-eastern Baltic zone during the Migration Period was frequently touched upon in literature, but not many devoted broader studies to the subject. Above all, it is necessary to mention Birger Nerman (1929) who investigated the relations between Scandinavia and the east Baltic basin during *jüngere Eisenzeit* (Younger Iron Age), which corresponds to Migration, Vendel and Viking Periods according to Swedish dating system. B. Nerman concentrated on material assigned to Vendel Period and in particular to Viking Age. He almost exclusively included Latvian and Estonian artefacts from the territory settled by the Finnish tribes. The question of contacts between Scandinavia and the south-western part of the Balt lands remained on the margin of his interest. Although he mentioned the subject in his later study but only in passing (B. Nerman 1935: 58–59, 126–127).

The subject was recently discussed by the author (A. Bitner-Wróblewska 1991b; 1992a) who presented a more detailed analysis including styles, elements of costume and drinking horn mountings. The study offers insight into significant connections linking the regions in question as well as defining the plane of these relations. The present publication may be treated as a more comprehensive continuation of these studies including a number of new goals.

Cultural interaction between Scandinavia and the eastern Baltic during Late Iron Age prompted some scholars to put forward the concept of a common "Scandinavian culture" around the Baltic Sea (B. Wyszomirska-Werbart 1991; 1992) however, the muddled and rather chaotic argumentation makes it difficult to follow the main thesis. The problem of Nordic activity in the southern Baltic between 5th and 10th centuries was discussed recently by Władysław Duczko (1997). The area of his investigation is wide, both in time and in space, covering the territory from Pomerania through the Balt lands to Estonia. Duczko concentrated first of all on the traces of Scandinavian presence in the southern Baltic zone giving

short characteristics of different stages in its development.

Apart from the just cited more comprehensive studies a number of researchers have dealt briefly with particular aspects of Balt-Scandinavian connections during Migration Period. However, these will be discussed more at length in coming chapters in association with the different categories of artefacts (see Chapter 2.). However, it is worth mentioning some Scandinavian scholars who drew attention to the evidence of such contacts. First and foremost, Haakon Shetelig (1906) and Nils Åberg (1919) were interested in Balt lands and, what is more important, included these materials creatively in their analyses. Recently, after a long intermission, Scandinavian archaeologists concerned with the Migration Period have once again turned their attention to the eastern Baltic basin (see U. Näsman 1984a; L. Jørgensen 1989; U. Lund Hansen 2000).

Chronological systems

Early Migration Period is traditionally associated with the appearance of Huns on the Black Sea in 375 AD, an event of a long-term consequence for the Barbarian world. The period in question occupies a special position as one of transition from the prehistory to the Middle Ages, but this is not paralleled by any special interest in its chronology. No studies have been devoted specifically to the Early Migration Period chronology of territories around the Baltic Sea. The neglect has continued even in recent years in contrast to other areas, for example, the middle Danube the chronology of which was studied so carefully by Jaroslav Tejral (1988; 1992).

Researchers working on the Migration Period focus on its later stage when significant cultural changes took place around the Baltic Sea. One indication of this change may be the appearance of rich weapon graves (A. Nørgård Jørgensen 1991b; L. Jørgensen & A. Nørgård Jørgensen 1997: 86–117). The considerable increase of grave complexes, both male and female, is regarded as another factor. All this encourages scholars to construct chronological systems for Late Migration Period omitting the earlier phase (K. Høilund Nielsen 1987; J. Kowalski 1991; A. Nørgård Jørgensen 1992).

The period of interest here has been discussed mostly by researchers studying Roman Period chronology, who nevertheless address the subject but briefly on the margin of their work. One reason for this situation may be that the transition from the Late Roman Period to the Early Migration Period is not clear. The two phases partially overlap, as has been pointed out by some scholars (R. Wołągiewicz 1987: 178–179, diagram 4; U. Lund Hansen 1988: 25; 1993: 177).

Poland	Early Migration Period (phase D)	Late Migration Period (phase E)
Denmark	Early Germanic Iron Age	Late Germanic Iron Age
Sweden	Migration Period (Period VI)	Vendel Period (Period VII)
Norway	Migration Period	Merovingian Period
Lithuania – Latvia	Middle Iron Age	Middle Iron Age

Fig. 1. A correlation table of different terms used in relation to the Migration Period.

Before embarking on the subject proper, it is necessary to review the differences in terminology used in literature. The schematic diagram (Fig. 1) correlates the terms used by archaeologists in different countries.

Among all these names of phases, the term "phase D" in particular has been used by many scholars on both sides of the Baltic (comp. K. Godłowski 1970; J. Reichstein 1975; U. Lund Hansen 1988). The term was introduced by Otto Tischler to describe phenomena occurring in certain areas of Central Europe, including Balt territory, in the 4th–5th cc. (O. Tischler & H. Kemke 1902: 10–13)[3]. Otto Tischler (1843–1891) associated with the research centre in Königsberg (H. Kühn 1976: 242; M. Hoffmann 1993) was the first non-Scandinavian scholar dealing with prehistory whose research became one of the foundations of modern Iron Age chronology (H. Gummel 1938: 268; K. Godłowski 1974: 49; 1988: 43).

Returning to the problem of different terminology used in literature, it should be remembered that some phases shown in the correlation table are not exactly synchronous (comp. Pl. I). For example, B. Nerman's Period VI may be synchronised with central European phase D and the beginning of phase E. Generally, studying the diagram of chronological correlation, one may observe that Early Migration Period (= phase D) in the area of the south and south-eastern Baltic zone, lasts shorter than Scandinavian Early Germanic Iron Age (= Norwegian Migration Period). It ends around mid 5th c. or a little later, while phenomena characteristic for Scandinavian Late Germanic Iron Age appear as late as 520/530 AD. The question arises whether differences of the range of Early Migration Period (= Early Germanic Iron Age) around the Baltic Sea are the result of terminological questions or of a different rhythm of cultural change. The latter assumption seems more probable given the arrival of the Slavs and their progress towards the south Baltic. Its consequence was the breaking of earlier cultural relations in this part of the Baltic basin.

After explaining terminological differences in the chronological systems functioning in the area under discussion it is necessary to present these systems more detailed. The author has drawn up a correlation diagram including the main indicators of particular phases (Pl. II). While focus will be placed primarily on the Early Migration Period the earlier phase is also included as far as it is necessary for the present study.

B. Nerman's research based on purely Gotlandic material (B. Nerman 1935) but it was thought as valid for others territories of Scandinavia. Currently, it has been suggested that chronology of the Migration Period should be redefined basing on the new evidence from Gotland (U. Näsman 1984b: 71). Period VI in Gotland contemporary with the Migration Period falls into two stages. The first of them, Period VI:1, continues the tradition of the Late Roman Period = Period V (O. Almgren & B. Nerman 1923) nevertheless it is possible to make up a list of its distinct indicators, especially brooches. Among them there is a group of fibulae defined by B. Nerman as "*kreuzförmige Fibeln*" (B. Nerman 1935: Figs. 1–26), which are fully distinct from the so-called cruciform brooches (*kreuzförmige Fibeln*) known from other territories of Scandinavia and north-western Europe (J. Reichstein 1975). The Gotlandic specimens lack patterns typical for the latter such as a plate with knobs on the head or an animal head on the end of the foot. Fibulae recorded on Gotland on the other hand feature a short spring with knobs on the ends of the axis, a knob on the head as well as a triangular foot. There is often a metope on the top of the bow. To this type of brooches may be added fibulae with a triangular foot and usually a triangular head-plate as well as specimens with a thickened, profiled foot (B. Nerman 1935: Figs. 27–49; 54–64). The open-work strap ends and buckles in which the frame and ferrule form a single unit become another indicator of Period VI:1 (B. Nerman 1935: Figs. 114–127; 144–147; 156–160). Weapons, recorded rather seldom on Gotland at the time in question, represent forms characteristic for the whole Scandinavian territory (B. Nerman 1935: 18, Figs. 267–278).

[3] The term was used later by other scholars such as E. Blume (1912; 1915) for Pomerania, A. Plettke (1921) and J. Brandt (1960) for north-western Germany and, at first, by H. Eggers (1951).

Some of the artefacts mentioned above, as brooches with a triangular foot and buckles, with a frame and ferrule forming a single unit, are also in evidence during Period VI:2 (B. Nerman 1935: Figs. 355–362, 486–497). A further stylistic development of the open-work strap ends may be observed (B. Nerman 1935: Figs. 458–470). The appearance of relief brooches decorated in the Nydam style as well as of the very common crossbow fibulae with a long foot may be taken as a signs of the onset of Period VI:2 on Gotland (B. Nerman 1935: Figs. 344–354, 366–375). Yet another feature associated with this transition may be the various forms of tongue-shaped strap ends (B. Nerman 1935: Figs. 473–485).

In absolute chronology Period VI begins roughly around 400 AD lasting until 550/600 AD (B. Nerman 1935: 119–121) or, according to the most recent chronological definitions, until *ca* mid 6th c. (B. Nerman 1969; 1975). The transition from Period VI:1 to VI:2 took place around 475/500 AD.

E. Bakka's system for Norway was discussed in detail by U. Lund Hansen (1976)[4]. E. Bakka (1973; 1977) distinguished four phases (*Stufen*) within the Migration Period basing on a collection of artefacts and art styles: bracteates of types A – D, silver-sheet (*Silberblechfibeln*), relief and cruciform brooches as well as Sösdala and Nydam styles and Style I. According to Bakka's definition the beginning of the Migration Period denotes the appearance of cruciform brooches type Dorchester and is placed around 400 AD. The end of this period is marked by the transitional point when relief fibulae are replaced by Scandinavian disc-on-bow fibulae, and Salin's Style I is supplanted by Salin's Style II.

Recent studies of Norwegian materials were undertaken by E. Straume (1987) who regarded the Migration Period mainly as a horizon of cruciform brooches. Other indicators of this period are silver-sheet fibulae with animals in profile decorated by stamping in Sösdala style and certain types of clasps. Common are also bucket-shaped pottery (*Buckelurnen*) and sets of weapons including U-shaped Snartemo scabbards. On the basis of styles Straume divided the Migration Period into the following stages: stage D_1, characterised by Sösdala and Nydam styles, and stage D_2 with the Sjörup style and elements of Style I.

A general bird's eye view of Scandinavian chronology was afforded by U. Lund Hansen (1988; 1992; 1993; 1994). As mentioned earlier, she drew attention to the unclear transition from phase C_3 to the Early Migration Period. It could not take place earlier than 350/360 AD (U. Lund Hansen 1994: 2). The beginning of the Migration Period are expressed by the transition from Nydam brooches to cruciform ones and from older silver-sheet fibulae to younger silver-sheet brooches with animals in profile. According to recent studies Early Germanic Iron Age ends before the middle of the 6th c., probably around 520/530 AD (U. Lund Hansen 1992: 185, 188).

The latest chronological system for Bornholm for the period of interest here was worked out by L. Jørgensen (1989). His investigations concern both the Late Roman Period and Early Germanic Iron Age. The seriation has been done on the basis of 98 grave complexes and makes it possible to distinguish eight chronological phases. Phases 7. and 8. covered the Early Germanic Iron Age.

The basis for positing them appears to be the brooches (L. Jørgensen 1989: 171–172, diagrams 1–2). Phase 7. is characterised by faceted crossbow fibulae with a long foot (= type F 23 according to L. Jørgensen), brooches with semi-circular heads and rhomboid feet (= type F 24) and so-called *ligearmede fibler* (= type F 25) with an elongation on the head. The appearance of relief brooches decorated in Nydam style (= type F 26) indicates the turn of phases 7. and 8. (L. Jørgensen 1989: 172). Crossbow fibulae with a long foot (*kraftige armbrøstfibler med lang fod* = type F 27), annular brooches (= type S 1) and pins with a profiled head (= type N 2) are assigned to phase 8. (L. Jørgensen 1989: 172, diagram 2). Type F 25 still continued in use.

[4] Recently J. Hines proposed certain modifications such as permitting the dating of finds to "double-*Stufen*" or to the cusp between two *Stufen* denoting finds combining characteristic types of two consecutive *Stufen* (J. Hines 1993: 3).

Phase 7. is dated to the period of 350/375–450/470 AD, followed by a phase ending in 520 AD. Such a subdivision of the Migration Period on Bornholm is parallel to the one on Gotland with the brooches being chronologically and typologically equivalent (L. Jørgensen 1989: 179–181). The basis for synchronising the Bornholm chronology with the one on the mainland appears to be brooches type F 27, approximate to type Schönwarling according to M. Schulze-Dörrlamm (1986: 671). Its absolute dating is strongly suggested by the hoard from Frombork with a *solidus* of Theodosius II (F. E. Peiser & H. Kemke 1914)[5].

An aspect of L. Jørgensen's system most open to criticism is the smallness of his sample of grave assemblages, something he noted himself (L. Jørgensen 1989: 179). The use of finds from mixed grave groups might be another problem (L. Jørgensen 1990: 23–27)[6].

The modern chronological systems of Balt lands were elaborated on the basis of O. Tischler's works by K. Godłowski (1970; 1974) and W. Nowakowski (1996). K. Godłowski's chronological studies concern the wide territory between the Elbe and Nemunas Rivers (K. Godłowski 1970; 1988) but in a number of studies he focussed his attention on the south-eastern Baltic coast (K. Godłowski 1974; 1980; 1981). Godłowski underlined the very clear transition from the Late Roman Period to the Early Migration Period, phase D, in Balt lands (K. Godłowski 1974: 65, 71–73). There is no phase C_3 in the area in question, although he did identify a group of crossbow brooches with a knob on the head having a slightly earlier chronological position among phase D artefacts (K. Godłowski 1974: 71, Pl. VII, 3–4, 10).

Early Migration Period is characterised by late crossbow brooches decorated with wire, older variants of star-footed fibulae and brooches type N. Åberg Figs. 45–58 (N. Åberg 1919)[7] which are associated with oval buckles with a thickened frame, tongue-shaped strap-ends, slender cylindrical pendants, cylindrical amber beads, combs with a bell-shaped handle as well as spurs of groups VIII–IX (K. Godłowski 1974: 71–72, Pl. VII). In the absence of sufficient data, one could not present a weapon set identified with phase D, except for domed shield bosses, some of them with faceted body (K. Godłowski 1974: 72). The latter, in evidence in a large area of Central European Barbaricum play an important role for the synchronisation of interregional chronology (K. Godłowski 1970: 110; A. Kokowski 1996a). K. Godłowski, basing on absolute chronology drawn from iconography, namely the diptych from the Monza cathedral (R. Delbrueck 1929: 242–248, Pl. 63) dated to 398 AD, connected this type of shield bosses with the end of the 4th and the beginning of the 5th cc. (K. Godłowski 1974: 91). According to the latest studies they are placed in the period 375–400 AD (J. Tejral 1987: 20, 24).

The end of the Early Migration Period is signalled by the appearance of early bow brooches (*Bügelfibeln*) i.e., *ca* mid 5th c. (K. Godłowski 1974: 91). Discussing the problem of synchronisation of Balt chronology with other territories, K. Godłowski pointed out a general similarity in phasing between Balt lands and Scandinavia (K. Godłowski 1974: 83–85). The stamp ornamentation is of great importance for synchronising the Early Migration Period in both areas. The dating of West Balt star ornamentation, based on the chronology of the Scandinavian Sösdala style, is associated with the end of the 4th c. and the first half of the 5th c. (K. Godłowski 1981: 75).

The finest up-to-date chronology for Balt territory is the one elaborated by W. Nowakowski for Samland where he has distinguished the Dollkeim/Kovrovo Culture (W. Nowakowski 1996). Basing on the correspondence analysis of closed assemblages as well as on horizontal stratigraphy of the main large cemeteries he established a chronological system consisting of six

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[5] See below, Chapter 2.2.

[6] L. Jørgensen has discussed the case of Møllebakken, grave 2, in the context of Late Germanic Iron Age, but a similar situation takes place in the case of Møllebakken, grave 1 where Early Germanic Iron Age artefacts were mixed with Late Roman Period hair ornament (O. Klindt-Jensen 1957: 234 no 6, Fig. 90: 13; comp. 1978: Fig. 30).

[7] I.e., trapeze-footed brooches as well as crossbow fibulae with a full catch-plate and a long and narrow foot called types Schönwarling/Skowarcz and Dollkeim/Kovrovo (see below Chapter 2.2.).

phases dated to Roman and Migration Periods (W. Nowakowski 1996: 15–54). For our study phases 4. and 5. seem to be the most important.

Phase 4. of Dollkeim/Kovrovo Culture appears to be a transitional one (W. Nowakowski 1996: 52–53, Table XVI no 32–36). The only indicators of this phase appear to be crossbow brooches with a full catch-plate (*Armbrustfibeln mit festem Nadelhalter* – no 35) and trapeze-footed crossbow fibulae (*Armbrustfibeln mit sich verbreiterndem Fuß* – no 36); other artefacts are characteristic for both earlier and later phases. Phase 4. might have been synchronised with the earlier stage of phase D (phase C_3) in interregional chronology, dated to the first three quarters of the 4th c. The basis for synchronising phase 4. with Central European chronology appears to be the presence of crossbow brooches with a full catch-plate and trapeze-footed ones. W. Nowakowski disagreed with the late dating of these ornaments proposed by M. Schulze (1977: 83–87, 101, Pl. 11–12; M. Schulze-Dörrlamm 1986: 624–625, Figs. 34–37) and linked both these types to analogies from the Elbe and the upper Danube (E. Keller 1974: 253–262, Fig. 2: 4b, 7; R. Koch 1985: 463–464).

Phase 5. of Dollkeim/Kovrovo Culture is characterised by stamp-decorated artefacts (W. Nowakowski 1996: 53, Table XVI no 35–40). Beside the latest finds of brooches typical for phase 4. there is a well distinguished set of items with stamp ornamentation namely, star-footed crossbow brooches and belt sets, including tongue-shaped strap ends and buckles with a metope at the spike base. These artefacts are synchronised with the Sösdala style, which encouraged W. Nowakowski to date phase 5. to the end of the 4th c. and the first half of the 5th c., or a little later (W. Nowakowski 1996: 53; comp. E. Bakka 1973: 60–61; 1977). Imports from the Danube basin and the Merovingian Culture Circle were used as other tools for the absolute dating of this phase of the Dollkeim/Kovrovo Culture (*"foederaten"* jugs of type Murga, glass beaker of type Snartemo from the cemetery at Warnikam). The end of phase 5. is indicated by the appearance of bow fibulae (*Bügelfibeln*) as well as of massive crossbow brooches decorated with wire (*Armbrustfibeln mit Ringgarnitur*), crossbow fibulae with a crosspiece on the foot (*Schlußkreuzfibeln*) and brooches with rungs (*Armbrustsproßenfibeln*) (W. Nowakowski 1996: 54, Table XVI no 41–42).

The dating system presented above, although legitimate in general, is not free from reservations. The question arises when one looks more closely at the indicators of phase 4. Except for the trapeze-footed brooches (*Armbrustfibeln mit sich verbreiterndem Fuß*) it is quite difficult to identify other indicators of this phase. Such a broad category of artefacts as crossbow brooches with a full catch-plate (*Armbrustfibeln mit festem Nadelhalter*) might has been very useful for a general periodisation of the Dollkeim/Kovrovo Culture, but it is difficult to point out which types of crossbow brooches in question could have been characteristic for phase 4. W. Nowakowski mentions only type Sližany found in grave 39 at Warengen (W. Nowakowski 1996: 53, Pl. 69: 6). The most popular types of crossbow fibulae with a full catch-plate, namely Schönwarling/Skowarcz (see Appendix B) and Dollkeim/Kovrovo (see Appendices C–E) could not be connected with phase 4. as they occur in assemblages with artefacts characteristic for phase 5. (see Chapter 2.2., diagram Fig. 5). Such a conclusion was also reached by the author of the chronological system for Samland (W. Nowakowski 1996: 53).

Given the lack of useful chronological scheme in Lithuania and Latvia the two outlined chronological systems must suffice as framework for the entire Balt territory. There is no systematic phasing of artefacts. In this area, on the whole, dates have traditionally been expressed in sometimes rather vague absolute-chronological terms, e.g. "4th–5th cc." or even "5th–8th cc." (see Latvijas PSR ... 1974; LAA 1978; A. Tautavičius 1996). An attempt made by M. Michelbertas (1986) proposed a correlation of different types of finds but was not based on a correspondence analysis of closed assemblages. The tendency to very late dating, already noticed in the past (see K. Godłowski 1974: 51), appears to be one of the features of Lithuanian and Latvian archaeology. A fitting example is that of necklaces with trumpet-like

terminals from Latvia. One such specimen found in Dzilnaskalns, eastern Latvia, was dated to around 200 AD (E. Šnore 1993: 53, Pl. II, 1) while this type of necklace is associated with phase B_{2a} (W. Nowakowski 1991: 52, Fig. 4).

Last, but not least, is the dating system for Pomerania refined by H. Machajewski, who worked out the chronology of the Dębczyno Group in the Parsęta River basin (H. Machajewski 1992a; 1993). This area seems to be on the periphery of our interest but its intermediary position in the Baltic basin forces us to include it in one diagram. Basing on the correspondence analysis, H. Machajewski identified two phases of the cultural unit in question – early and late, each subdivided into sub-phases. Phase I can be synchronised with the Late Roman Period, phase II with the Migration Period. The earlier stage of the Migration Period, phase IIa, is characterised by late variants of *Bügelknopffibeln* and brooches closely resembling them with a semi-circular foot [8], bow-curved strap ends and glass beakers of types E 220 (= type "Gąskowo") and E 230 (= type "Kowalki"). Gold necklaces, bracteates type C and the appearance of coins of Anastasius are indicators of H. Machajewski's phase IIb.

The diagram (Pl. II) reveals substantial differences between the chronological systems used around the Baltic Sea. As for the general chronology for the area in question, the existing research differs widely depending on the method and as such is very difficult to compare. In fact, no helpful attempt has been made to correlate the chronology of the western and the eastern Baltic. Scandinavian archaeologists are hardly interested in this. An exception are L. Jørgensen's remarks on the Frombork hoard with Schönwarling/ Skowarcz brooches. K. Godłowski and W. Nowakowski, dealing with the Balt material, have paid much more attention to this problem. Their basic tool appears to be the synchronisation of the stamp-decorated artefacts horizon in the Balt lands with the Scandinavian Sösdala style. The Sösdala style was treated by them as not only a stylistic, but first of all, a chronological indicator. However, such an assumption seems to be questionable.

The chronology of Scandinavian Early Germanic Iron Age has been absolutely dominated by stylistic studies of the fine metalwork. This period is subdivided on the basis of style. The earliest style is the Sösdala (U. Lund Hansen 1970) partly overlapping with the Nydam style (O. Voss 1955). Next comes the Sjörup and Animal Style I (G. Haseloff 1981). One tendency is to take an evolutionary approach (E. Bakka 1973; 1977) another, to note a partial overlap of individual motifs, often present in a single specimen (U. Näsman 1984b: 60–62, 70–71, Fig. 1). The presence of different styles on a single object[9] puts to question their chronological value. The Sösdala style is not an exception. Very broad and vague definition of this style makes it useless either as a more precise chronological indicator or as a tool for synchronising different areas.

To conclude, another way needs to be found for synchronising the chronology on both sides of the Baltic Sea something, which is attempted in the present study. The analysis of widespread artefacts (see Chapter 2.) could be of assistance for identifying common horizons of certain types of ornaments, which would make it possible to correlate their chronological context. It might also be useful to present the Sösdala style in a new light.

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[8] The author of the present study uses the term "type I of spade-like footed brooches (*Schaufelfußfibeln*)" to describe this group of fibulae (A. Bitner-Wróblewska 1991a: 56–58; see also below Chapter 2.3.).

[9] A good example may be a cruciform brooch from Lunde, "Spanskslottet", Vest Agder, in Norway, decorated on the bow and foot with Sösdala style stamping and on the head with Nydam style ornament (Universitets Historisk Museum Bergen, B. 4286; see J. Reichstein 1975: 210, Pl. 64: 1–19). Recent finds from Nydam appear another confirmation of different styles presence on a single specimen (F. Rieck et al. 1999: Fig. 13).

2. Material

2.1. The Baltic Sea in the Early Migration Period

Introduction

Before embarking on the analysis proper it is necessary to define the areas of interest around the Baltic Sea. As has been noted, these territories differ from each other in their ethnic identity, culture and history of research. It would be over-ambitious and inappropriate to attempt a comprehensive description of the culture in the region and period covered by this monograph. Rather, this Chapter attempts to briefly indicate the main problems and turn our attention to the principal cultural centres in the region.

However, even though the territory is so heterogeneous one may still point out a number of common features. The continuation of Late Roman Period tradition may be one of them. In some regions around the Baltic Sea the transition from the Late Roman Period to the Early Migration Period is particularly indefinite, while the social structure and the range of artefacts generally shows steady development. Even the appearance of the Huns and the displacement of various tribes gravitating towards the disintegrating Empire seem to have had little impact on the Baltic zone. The import of glass vessels to Scandinavia in the Hunnic period confirms such a line of argumentation (U. Näsman 1984a; E. Straume 1987). A continued production in the Black Sea workshops supported by the distribution of glass goods in Scandinavia suggests the existence of the same trade routes as those dated to the Late Roman Period.

One of the characteristic features of the Early Migration Period (Early Germanic Iron Age) is the considerable decline in the number of both graves and finds recorded in them. This phenomenon has been regarded by some scholars as a demographic crisis even approaching extinction of settlement or migration. This was suggested e.g., for Gotland (B. Nerman 1935: 126 – 129) and the Mazurian Lakeland (W. Nowakowski 1995: 20; 1996: Map 18). A decline in the number of graves in Scandinavia combined with other phenomena as e.g., abandoned houses has been interpreted as a crisis of the Scandinavian Migration Period but the significant increase in loose finds registered over the last years has encouraged scholars to verify this assumption (comp. U. Näsman 1986: 105; 1988, earlier literature ibid.; U. Lund Hansen 1988; K. Høilund Nielsen & P. Vang Petersen 1993).

The Balt lands

The name Balts refers to peoples inhabiting the south-eastern Baltic basin. Their archaeological manifestation reveals the presence of a culture unit extending east of the Lower Vistula River, between the Pasłęka River and the basin of the Daugava River. While this clearly distinguishable area differed from its neighbours – the Wielbark Culture people and their successors to the west and south, the Stroked Ware Culture people[1] and their successors to the east, and the Tarand Culture people to the north, it was far from being a cultural

[1] It should be remembered that the Stroked Ware Culture people also belonged to the large family of Balt tribes but they represented a different group of Balt peoples characterised by an entirely different model of life more typical for cultures of the forest zone.

monolith. The problem of its inner differentiation has been discussed in literature since the end of 19th c. (O. Tischler 1891: 98; see also E. Hollack 1908a: LII–LVII; 1908b; C. Engel 1933; J. Okulicz 1973; K. Godłowski 1976: 23–24; A. Tautavičius 1980; W. Nowakowski 1991). Burial customs as well as differences in costume have been treated as the main criteria for differentiating the area between the Lower Vistula River and the drainage basin of the Daugava River.

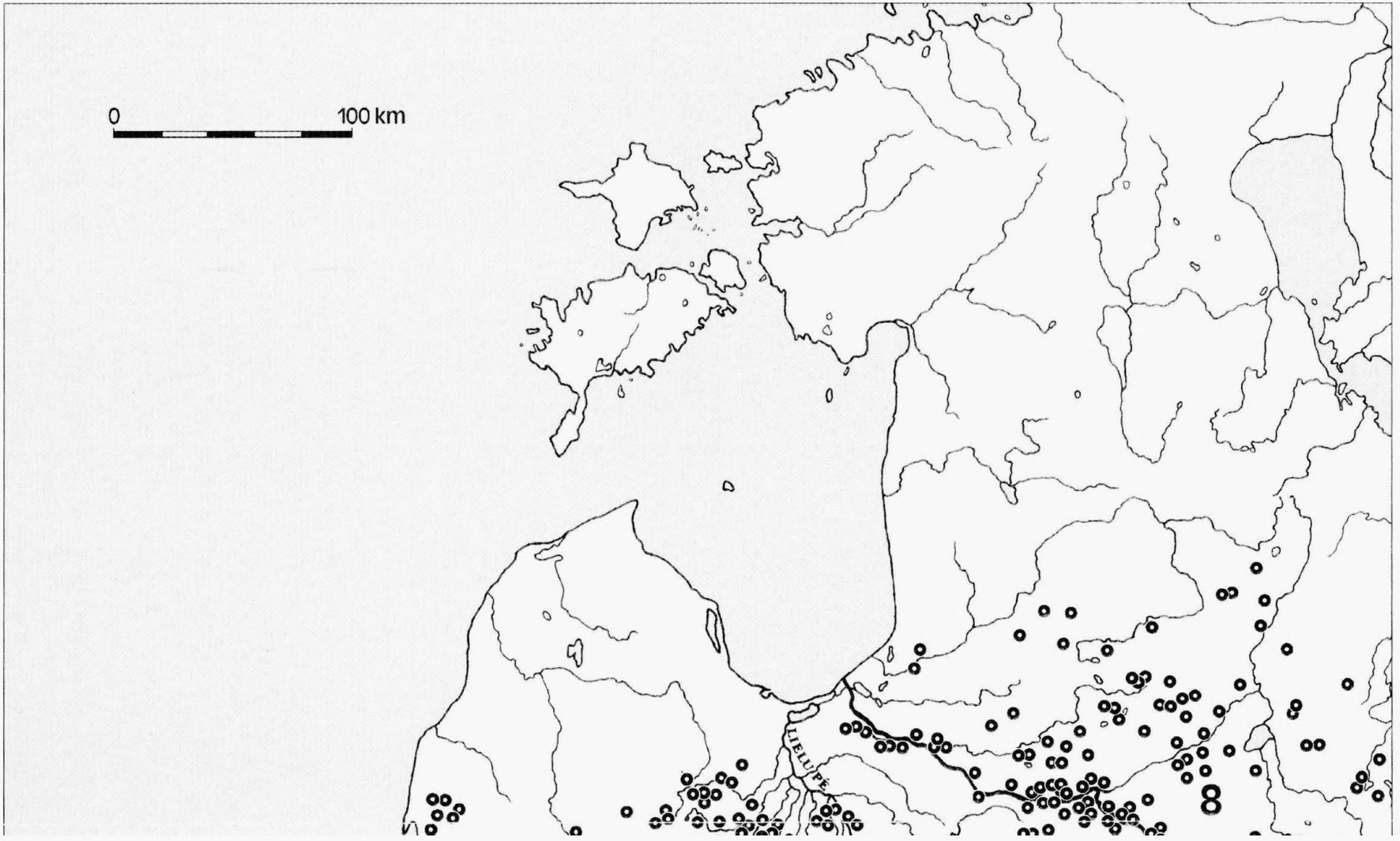
Basing generally on the burial customs it is possible to distinguish two main zones – the western zone with flat cemeteries and the eastern, with barrows. The broad zone of flat cemeteries covers the following culture and cultural groups (Fig. 2): the Dollkeim/Kovrovo Culture found in the Samland Peninsula and in the drainage basin of the Pregolya River, the Bogaczewo Culture in the Mazurian Lakeland, the West Lithuanian Group, placed along the Lithuanian coast up to the southwestern Latvia, the Lower Nemunas Group, the Central Lithuanian Group in the drainage basin of the Nevėžis and Neris Rivers, the Samogitian Flat Cemeteries Group between the Jura and the Dubysa Rivers, the Semigallian Flat Cemeteries Group found in the drainage basins of the Mūša and Lielupė Rivers and, finally, the East Latvian Flat Cemeteries Group. The eastern zone includes the Sudovian Culture, found to the east of the Great Mazurian Lakes up to the middle course of the Nemunas River and the East Lithuanian Barrows Culture (Fig. 2).

Among the culture units named above the Dollkeim/Kovrovo Culture merits special attention. While its name has been introduced lately by W. Nowakowski the existence of a separate culture unit in Samland Peninsula, Natangen and Nadrauen[2] was pointed out in literature earlier (W. Nowakowski 1996, earlier literature ibid.). This strong economic and cultural centre played an important role in the eastern Baltic basin as a "port-of-trade" (comp. K. Polanyi 1963; 1978) functioning as intermediary in the dissemination of interregional civilisational and stylistic novelties in the region and maintaining far-flung commercial and cultural links. The special position of the Dollkeim/Kovrovo Culture was bolstered by its rich amber deposits, which had led even to the establishment of close, possibly direct, contacts with the Roman Empire. The existence of such contacts is confirmed by a reference in Pliny [*Naturalis Historia* XXXVII, 3 [11], 45] to a state Roman expedition for amber late in the reign of Nero which reached the Baltic Sea and probably, Samland as well (J. Kolendo 1981). The inhabitants of Samland are commonly associated with the *Aestii*, known to Tacitus [*Germania*, 45, 2–4] and Jordanes [*Getica*, 36] (see O. Kunkel 1943: column 1815; J. Okulicz 1986: 14–18).

The process of formation of the Dollkeim/Kovrovo Culture was completed in the late 1st c. AD (phase B_{2a}) and its development continued into the Early Middle Ages (W. Nowakowski 1996: 93–97). There are several cemeteries offering such a long-term perspective, e.g. Dollkeim/Kovrovo in the northern part of Samland and Warnikam in Natangen. Following a period of decline during the younger phase of the Late Roman Period the Dollkeim/Kovrovo Culture once again begins to flourish during the Migration Period. Samland costume dated to this time features items with a stamp decoration: star-footed crossbow brooches (*Sternfußfibeln*) and belt sets including tongue-shaped and bow-curved strap ends (*zungen- und schnabelförmige Riemenzungen*) as well as oval buckles with thickened bow, ferrule and a metope at the spike base (*Schnallen mit Metopendorn*). Stamp-decorated artefacts were supplemented by crossbow brooches with a full catch-plate and a long, narrow foot. The distribution of these items in the eastern Baltic basin reveals the range of cultural influences of the Dollkeim/Kovrovo Culture (see chapters below).

On the other hand this eastern Baltic "port-of-trade" functioned in close association with other regions of European *Barbaricum*. Connections between Samland stamp decoration and Sösdala-Untersiebenbrunn style (see Chapter 3.) appear to be the best example of such a relationship. The far-flung commercial and cultural links

[2] Natangen and Nadrauen are situated in the drainage basin of the Pregolya River – the former to the south of Samland Peninsula, the latter, to the east (H. Kirrins 1958).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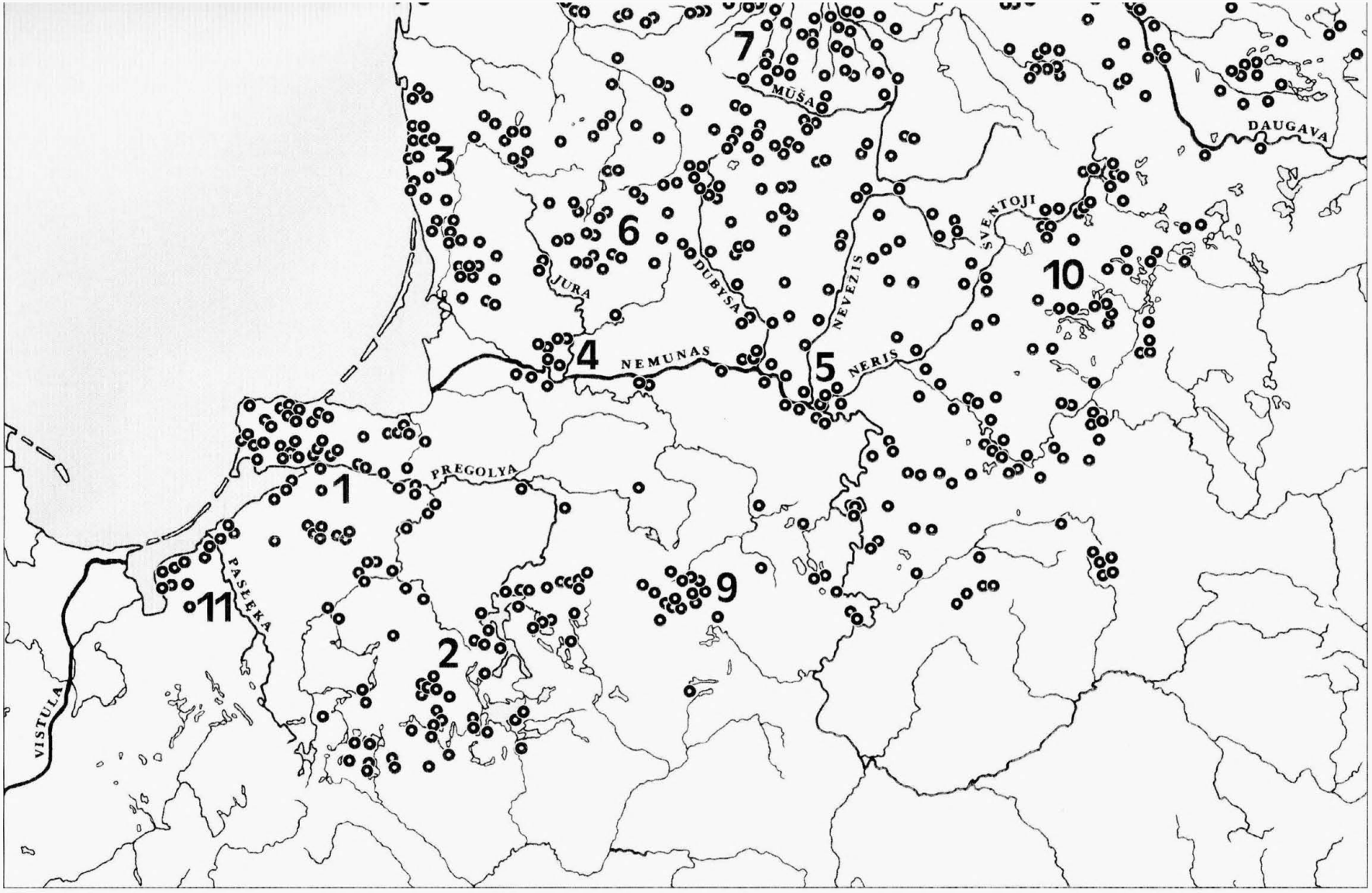

Fig. 2. The Balt lands during Migration Period. 1 – Dollkeim/Kovrovo Culture; 2 – Bogaczewo Culture/Olsztyn Group; 3 – West Lithuanian Group; 4 – Lower Nemunas Group; 5 – Central Lithuanian Group; 6 – Samogitian (Žemajtija) Flat Cemeteries Group; 7 – Semigallian Flat Cemeteries Group; 8 – East Latvian Flat Cemeteries Group; 9 – Sudovian Culture; 10 – East Lithuanian Barrows Culture; 11 – Elbląg Group.
Olsztyn Group (no 2) and Elbląg Group (no 11) functioned only in the Late Migration Period (phase E).

FIGURE 2

of the Dollkeim/Kovrovo Culture may be confirmed by the finds recorded at the Warnikam cemetery. Graves 30, 31 and 61 produced Murga jugs (O. Tischler & H. Kemke 1902: 43–44, Pl. XXII) imported from the middle Danube River basin. Two gold rosettes decorated with garnets from grave 1 and a glass beaker type Snartemo found in grave 65 (O. Tischler & H. Kemke 1902: 41–42, 45) indicate west European connections.

The dominance of the Dollkeim/Kovrovo Culture in the eastern Baltic basin is especially marked in the case of the Bogaczewo Culture (Fig. 2, no 2). This culture unit distinguished by W. Nowakowski (1985) was flourishing in the Mazurian Lakeland since phase A_3/B_1, characterised by flat cremation cemeteries and local costume. The population of the Mazurian Lakeland is identified with the *Galindai* mentioned by Ptolemy (J. Okulicz 1981: 152–167; W. Nowakowski 1995: 83–84). According to earlier literature a remarkable change took place in Mazuria at the turn of the Late Roman and Early Migration Periods. It was thought to be reflected in the lack of sites dated to the Early Migration Period as well as – in contrast to the Roman Period – the lack of sets of artefacts from this time characteristic exclusively for the Mazuria (W. Nowakowski 1995: 20; 1996: Map 18). However, the results of new research forced a change of opinion (A. Bitner-Wróblewska 2000a). The author has collected the significant number of artefacts dated to the Early Migration Period covering the whole area populated in the Late Roman Period by the Bogaczewo Culture people (A. Bitner-Wróblewska 2000a: Figs. 5–6). Without exception all of these specimens represent types characteristic for Samland costume. An interesting remark concerns the character of these finds, which are mostly loose ones. Graves dated to phase D, shallow and often poorly furnished were easily destroyed. According to the case of the Wyszembork cemetery (W. Nowakowski 1995: 23–24; M. Fedorczyk, W. Nowakowski & P. Szymański 1998: 368–372) the number of Early Migration Period artefacts has remarkably increased since the introduction of metal detectors (A. Bitner-Wróblewska 2000a: Fig. 7).

In the western zone of flat cemeteries those of the Dollkeim/Kovrovo and Bogaczewo Cultures are the only with exclusively cremation graves. Other territories, with a single exception discussed below, feature inhumation graves. An interesting burial custom occurs in the West Lithuanian Group (A. Tautavičius 1980: 81; M. Michelbertas 1986: 27–41; A. Vasks 1997: 49–51, 62–63), situated to the north of the Nemunas River mouth to the south-western Latvia reaching Durbre Lake and the Tebra River (Fig. 2, no 3). The dead were buried unburned in graves marked with stone circles 4–6 m in diameter. Such stones circles were placed one close to the other, e.g. Tūbaušiai cemetery (R. Rimantienė 1968: Figs. 2–9). In the northern periphery of group in question, in south-western Latvia, stone circles gave way to a single stone. The formation of the West Lithuanian Group was completed in the beginning of phase B_2, parallel with the Dollkeim/Kovrovo Culture. Over the centuries Samland strongly influenced the West Lithuanian Group, however the latter produced also local artefacts, e.g. women's headgear decorated with copper alloy elements (A. Bezzenberger 1892: 147–150, Pl. XIII; R. Volkaitė-Kulikauskienė 1959). Some of the Samland ornaments were transformed in this region giving rise to local variations such as star-footed crossbow brooches type III (see Chapter 2.3.).

The rich amber deposits might be a good explanation for a number of Roman imports recorded in the West Lithuanian Group (M. Michelbertas 1972; W. Nowakowski 1985). "*Foederaten*" jug type Murga found in Veivirženai (W. Nowakowski 1996: 85, earlier literature ibid.) suggested the same direction of far-flung connections maintained both by the West Lithuanian Group and the Dollkeim/Kovrovo Culture. The people of the former culture unit have been identified as ancestors of the Curonians, mentioned for the first time in the written sources dated to the 9th c., namely the Rimbert Chronicle (A. Tautavičius 1996: 45, 85–91, Fig. 1; A. Vasks 1997: 63).

The Lower Nemunas Group (Fig. 2, no 4) occupied an intermediate position between the Dollkeim/Kovrovo Culture and the West

Lithuanian Group, joining the flat cremation graves of Samland to the Lithuanian inhumation burials (but without stones). The beginnings of the Lower Nemunas Group are dated similarly as those of the former culture units i.e., Early Roman Period (A. Tautavičius 1980: 81–82, 85–86, Figs. 2–3; M. Michelbertas 1986: 41–44, 239, Fig. 89). Besides cemeteries, which persisted in use until Early Middle Ages, like Linkuhnen/Rzhevskoe (C. Engel 1932) other necropoli were established only in the Migration Period, e.g. Vidgiriai (V. Šimėnas 1988; 1996). The latter is especially worth noting in view of its rich grave inventories, which included silver and gilt silver items. One of the characteristic features of the Migration Period appears to be a significant increase in the number of wealthy burials containing silver artefacts. The Vidgiriai cemetery seems to be a representative of such a tendency. Lithuanian folklore offers insight into a number of myths concerning silver and its special power (L. Vaitkunskienė 1981: 11–14; A. Dweyer & D. V. Kupičinskaitė 1998). The population settling the territory of the Lower Nemunas Group is associated with the Scalovians (A. Tautavičius 1996: 45, 81–85, Fig. 1).

Last, but not least, there is the Central Lithuanian Group (Fig. 2, no 5), which in its origins also reached back to the Early Roman Period (A. Tautavičius 1980: 82, 84–85, Figs. 1–2; M. Michelbertas 1986: 44–54, 239, Fig. 89). The earliest flat cemeteries with inhumation graves appeared in the drainage basin of the lower Nevėžis and Neris Rivers, both tributaries of the Nemunas River. In the Early Migration Period the Central Lithuanian Group reached its maximum territory covering the entire drainage basin of the Nevėžis as well as the left bank of the middle Nemunas. A significant concentration of big cemeteries has been recorded at the confluence of the Neris and the Nemunas Rivers, nowadays in the vicinity of Kaunas. Unfortunately, these necropoli, namely Sargenai, Veršvai, Marvelė, have been only mentioned in literature (M. Michelbertas 1986: 44–54; A. Astrauskas 1994). Close connections with Dollkeim/Kovrovo Culture observed there during Early Roman Period (W. Nowakowski 1996: 87–88) became much weaker in Late Roman and Early Migration Periods when the Central Lithuanian Group maintained links with the Bogaczewo and the Sudovian Cultures as well as their counterparts in east Lithuania (A. Astrauskas 1996). The distribution of enamelled ornaments could be a good confirmation of such a conclusion.

There are a number of horse graves at cemeteries at Marvelė and Plinkaigalis (V. Kazakevičius 1993). This special burial custom characteristic in Samland and the Bogaczewo Culture already during the Roman Period (J. Jaskanis 1966) flourished in western and central Lithuania starting from the Early Migration Period, although it appeared there somewhat earlier (O. Navickaitė-Kuncienė 1968: 165, 180).

Plinkaigalis, situated on the western periphery of the Central Lithuanian Group, produced also a group of items suggesting the direction of far-flung connections of this culture unit. A silver-sheet brooch (*Blechfibel*) found in grave 144, had been imported from the middle Danube basin (V. Kazakevičius 1992: 100, Fig. 9). Several drinking horn mountings, made of silver and richly ornamented, find their analogies in Scandinavia, particularly Gotland (V. Kazakevičius 1987; A. Bitner-Wróblewska 1991b: 236–237, Fig. 8).

The inhabitants of the territory of the Central Lithuanian Group have been identified with Aukštotians, known from the Early Medieval written sources (A. Tautavičius 1996: 58–64, Fig. 1).

A common feature of culture units discussed above is their stable settlement with a long tradition of burying the dead in flat cemeteries going back to the Early Roman Period. Apart from these archaeological units there are several culture units of the western zone with flat graves which had been forming during the Early Migration Period. This applies to the Samogitian (Žemajtija), Semigallian and East Latvian Flat Cemeteries Groups (Fig. 2, nos 6–8). In the Roman Period this broad territory extending from the middle drainage basins of the Jura and Dubysa Rivers up to the middle Daugava River formed a single barrow unit (A. Tautavičius 1980: 82, Fig. 2; M. Michelbertas 1986: 54–68, 239, Fig. 89). At the turn of the Late Roman and Early Migration Periods a significant

cultural transition took place in the area giving rise to the formation of several smaller groups (H. Moora 1938: 666–669, 676–679; A. Vasks 1997: 53–55, 63–69). The rise of flat cemeteries with inhumation graves in the place of barrows could be the principal indication of such change. The earliest changes in burial customs took place in Žemajtija and are being linked to a partial migration of the west Lithuanian population (M. Michelbertas 1989). However, the connections linking Samogitian, Semigallian and East Latvian Flat Cemeteries Groups with their western counterparts considerably weakened. There are only a few finds of star-footed brooches – so typical for Samland costume – recorded in Žemajtija and its eastern neighbours and they mostly represent the Finnish variations (see Chapter 2.3.). Finnish influences were well evident, especially in eastern Latvia as in the mixed Balt-Finnish settlement in the Daugava mouth area (comp. e.g. Pļavniekkalns cemetery – H. Moora 1929: 92–109). On the other hand, the local culture produced characteristic women's costume with its distinct headdress of spiral ribbon form (R. Volkaitė-Kulikauskienė 1984; L. Vaitkunskienė 1992).

This extensive territory of new flat cemeteries emerging from the Early Migration Period has been identified with several tribes known from later written sources. There are the Samogitians, placed between the Jura and Dubysa Rivers (A. Tautavičius 1996: 45, 64–73, Fig. 1), Semigallians situated in the drainage basins of the Mūša and Lielupė Rivers (A. Tautavičius 1996: 45, 91–94, Fig. 1; A. Vasks 1997: 63–65) as well as Selonians and Lettigallians settled on opposite sides of the middle Daugava River (A. Vasks 1997: 65–69). The problem of ethnic identification of the last two tribes still remains an open question (F. Jakobson 1929; R. Deņisova 1989; A. Radiņš 1994).

The Balt barrow zone extended from the area to the east of the Great Mazurian Lakes up to the upper Šventoji River (Fig. 2, nos 9–10). The process of its formation came to its completion during Late Roman Period and at the turn of this period and the Early Migration Period. Earlier, this territory had been occupied or at least strongly influenced (e.g. Suwałki region) by the Stroked Ware Culture (E. Danilaitė 1966; J. Graudonis 1980; Ł. Okulicz 1981). This unit, a representative of one of east European forest zone cultures, must have practised archaeologically elusive burial practices. Earth-works and settlements remain the only sites recorded by archaeologists (A. Mitrofanov 1978; R. Volkaitė-Kulikauskienė 1986; E. Grigalavičienė 1986)[3].

The Early Roman Period saw a gradual intensification of western influences from the Bogaczewo Culture far to the east, well evident in the spread of artefacts typical for that culture and the appearance of individual graves (W. Nowakowski 1991: 46–47, 52–59, Figs. 6–8). In the case of east Lithuania this may be ascribed also to a partial inland migration from the west. In the Late Roman Period the Balt barrows zone was finally formed (W. Nowakowski 1995: 78–80). The Sudovian and East Lithuanian Barrows Cultures have been distinguished in this area (M. Kaczyński 1976; A. Tautavičius 1980: 83–84, Fig. 3).

The former reached its maximum territory in phase D covering the Suwałki and Gołdap regions as well as Augustów (A. Bitner-Wróblewska 1998: 308–309). While in the Late Roman Period barrows coexisted with flat graves and cremation graves co-occurred with inhumation burials, in the Migration Period the burial custom was dominated by barrows with cremation as the only practice. Such barrows contained several to a dozen or so burials called "family barrows". The basic archaeological source for Sudovian Culture continues to be pottery with a group of distinct variants including double-conical pots with finger impressions (A. Bitner-Wróblewska 1994a) and elongated, "tub shaped" cinerary urns[4]. Weapons are no longer found in burials, and the small stock of ornaments is represented by artefacts typical for the Dollkeim/Kovrovo Culture and its neighbours.

[3] An exception appears to be a number of cremation graves known exclusively from the southern periphery of Stroked Ware Culture, e.g. Kernavė, Paveisininkai (A. Luchtanas 1992).

[4] The recent study on this pottery type reveals that it is characteristic only for a relatively small region within Sudovian Culture (R. Prochowicz, in print).

The Dollkeim/Kovrovo Culture influences were especially significant for the western periphery of the Sudovian Culture, namely in the Gołdap area, traditionally connected with Samland (comp. C. Engel 1933: 278–280). This region revealed a number of imports linking it both to the Black Sea, e.g. *Zikadenfibel* from Czerwony Dwór/ Rothebude (G. Bujack 1885: 24, Fig.) and the Baltic Sea, e.g. a brooch A.244 found at Nowa Boćwinka/Neu-Bodschwingken (O. Tischler 1879: 257, Pl. III, 16). Imports known from outside the Gołdap region became a rarity. Among them a unique find appears to be a Roman razor with a panther head handle, recorded at Netta, grave 164 (M. Kaczyński 1991: 182–192, Figs. 17–19).

There is a question of the ethnic identity of the inhabitants of the Sudovian Culture. Its area coincides almost fully with the approximate extent of lands occupied by the Early Medieval Jatvings (A. Kamiński 1953; J. Nalepa 1981). However, archaeological evidence from between the mid-seventh c. until the times of historical Jatvings is insufficient to safely identify the people inhabiting the area in question during the Roman and Migration Periods with Early Medieval Jatvings.

The cultural influences of the Sudovian Culture, reflected i.a. by the spreading cremation burial custom, reached the middle course of the Nemunas River, although there was a number of local features. In contrast to the Sudovian Culture burial inventories became much more elaborate including a set consisting of numerous weapons (see e.g. Wysokie/Vilkiautinis cemetery – S. Krukowski 1913). A find of a domed shield boss with a faceted body from Krikštonys reveals far reaching connections with the south and south-eastern part of European *Barbaricum* (P. Kulikauskas 1959; A. Kokowski 1996a).

The territory extending from the right bank of the middle Nemunas River up to the upper Šventoji River (Fig. 2, no 10) has been distinguished as the East Lithuanian Barrows Culture, associated with Lithuanians (A. Tautavičius 1996: 45–57, Fig. 1). Its burial custom featured inhumation graves covered by earth mounds. The most significant grave assemblage appears to be Taurapilis, barrow 5 (A. Tautavičius 1981: 20–32, Figs. 3–34). This rich warrior's grave produced a set of weapons usually connected with the Black Sea territory and the Ostrogoths (J. Werner 1977). However, recently a different assumption has taken shape linking some elements of the sword, namely the scabbard mount, as well as *Schwertriemendurchzüge* with Scandinavian environment, e.g. Nydam finds (comp. G. Bemmann & J. Bemmann 1998: 221–223, Fig. 80).

In literature Balt lands are considered to have been one of the most stable regions of Europe during the Migration Period (K. Godłowski 1989: 38). This view is largely justified but it must be said that significant changes in settlement did occur at the turn of the Early and Late Migration Periods on the western border of the Balt territory. The crisis of the Wielbark Culture, which occurred to the east of the Lower Vistula opened up this area to the expansion of the Balt population (J. Okulicz 1973: 471–474; 1986: 30; K. Godłowski 1980: 78 – 83). This can be seen in archaeological material as a discontinuation in the use of several cemeteries in Samland and the appearance of new sites with typically Balt material on the Elbląg Heights and the right bank of the Lower Vistula. The emergence of a distinct Elbląg Group (Fig. 2, no 11) took place in the latter area, characterised by numerous links with the Samland Peninsula and by the presence of Scandinavian imports (M. Pietrzak 1977; K. Godłowski 1981: 112–114, Figs. 28–30; J. Kowalski 1991). This direction of contacts continued in the region in subsequent centuries, finding its remarkable expression in the Early Medieval trading centre at Truso – Janów Pomorski (M. Jagodziński & M. Kasprzycka 1991).

However, the area by far the most affected, was the Mazurian Lakeland. In the second half of the 5th or at the beginning of the 6th c. a new, fully developed cultural entity appeared in this area, the Olsztyn Group (*"masurgermanische Kultur"*) (E. Šturms 1947; 1950; J. Okulicz 1973: 476–491; J. Kowalski 1991). The exceptionally rich inventory of this group, unseen elsewhere in this part of Europe, bears the features of an interregional Germanic culture, particularly, of the Ostrogoths and the Gepidae (H. Kühn 1981). The question of the origins of the Olsztyn Group continues to be

open to speculation. One very attractive, although not fully substantiated explanation is that this culture was established by an offshoot of the *Galindai* who accompanied the Goths on their trek to the south, later to return to their homeland (W. Nowakowski 1989: 120–123, earlier literature ibid.; 1995: 20–22).

Apart from the Germanic influences, the Olsztyn Group features also Slavic ones, particularly recognised in pottery (J. Okulicz 1988). Slavic influences concerned not only the Olsztyn Group, but also other Balt lands, especially the barrow zone which became a close neighbour of the Slavs. The impact of the Slavic culture brought to an end the local burial custom in the south-western part of the Balt settlement, giving rise to archaeologically elusive burial practices (J. Okulicz 1989: 80–81). In contrast to the Balt lands, the appearance of Slavs radically changed the situation to the west of the Lower Vistula. The population settled earlier in the area declined.

The Germanic lands

Before the advent of the Slavs to the south Baltic shore at the end of the 6th c. (M. Parczewski 1997) this territory was occupied by Germanic people. Around the mouth of the Vistula settled the Wielbark Culture and its successors, while between the lower course of the Odra and Łeba Rivers – the Dębczyno Group. The former is usually connected with a conglomerate of various groups known from the written sources as *Vidivarii* [Jordanes, *Getica*, 96]. In the Early Migration Period this culture unit registered a marked decline in the number of graves coupled with the impoverishment of the grave assemblages (W. Heym 1939; K. Godłowski 1981). The same is true of the Dębczyno Group, a heterogeneous cultural unit formed at the beginning of the Late Roman Period on the base of Wielbark Culture settlement strongly influenced by the Elbian Culture Circle (R. Wołągiewicz 1981; K. Godłowski 1983; H. Machajewski 1988). In the course of its progress the Dębczyno Group revealed its connections with the Black Sea area confirmed by glass vessel finds, and with Scandinavia, evidenced by grave construction and a number of artefacts (H. Machajewski 1992a: 121–125; 1992b). The latter influences intensified due to the presence of immigrants from Scandinavia, or more precisely, from Bornholm (H. Machajewski 1992b: 86–90). Such an assumption finds its clear confirmation in the case of the Głuszyno cemetery and its surroundings (H. Machajewski 1995). The distribution of spade-footed brooches type I suggests some links with the Balt lands. They are especially visible in the case of the Lower Vistula area, with significant examples at Pruszcz Gdański, site 5 (see Chapter 2.3.).

Both territories, namely the Dębczyno Group and the region around the mouth of the Vistula became a part of a wide western Baltic zone of *solidi* hoards. An impressive number of gold coin finds has been recorded in Pomerania, Gotland, Öland and Bornholm, and, to a lesser degree, Jutland, the Danish islands, the Scandinavian Peninsula and north-eastern Germany (W. Knapke 1941; J. Werner 1949; J. Fagerlie 1967; K. Godłowski 1980; F. Herschend 1980). The stream of *solidi* began reaching the western Baltic basin during the first half of the 5th c. and finally came to an end in the first decades of the 6th c. An exception appears to be Gotland with its emissions of Justin I (518–527) and Justinian I (527–565). Besides the coins there were also finds of deposited gold ornaments, as neck-rings, finger rings, bracteates and brooches. This phenomenon of circulation and thesaurization of gold, integrating the western Baltic basin, stands in obvious contrast to its absence in the south-eastern zone of the sea (A. Bitner-Wróblewska 1991b: 227–229, Figs. 2–3). The dividing line is particularly marked in the second half of the 5th and the early 6th cc., running through the regions east of the Lower Vistula, i.e. the zone directly adjoining the Balt *Aestii* and the presumably Germanic *Vidivarii*. Material remains of their occupation fit into widely different categories of archaeological evidence: of the *Vidivarii* – hoards of *solidi* remain and of the *Aestii* – cremation burial grounds. The dividing line, undoubtedly ethnic in nature, probably also reflects differences in customs and religious beliefs (K. Godłowski 1989: 34–35).

No conclusive interpretation of the gold hoards occurring in the western Baltic basin has been put forward. Explanations range from ritual gifts, therefore an expression of wealth (J. Worsaae 1865), hidden treasure, sign of unquiet times (S. Bolin 1926) to substitute grave goods (K. Godłowski 1981: 77–79). There is also an opinion that their purpose varied and their character was both sacred and profane (H. Geisslinger 1967; L. Hedeager 1991).

A significant increase in the number of Scandinavian hoards dated to Early Germanic Iron Age is accompanied by a decline in the number of graves. This applies to the whole Scandinavia excluding Norway, which produced numerous graves dated to the Migration Period (see H. Shetelig 1912; B. Hougen 1935). Generally, the Scandinavian burial practice was dominated by inhumation, although in some regions, e.g. Bornholm, Norway, Gotland, it was associated with cremation graves (L. Jørgensen 1990; B. Myhre 1987; B. Nerman 1935). Another common feature of the burial rite dated to the Early Germanic Iron Age appears to be the evidence of small family cemeteries and scattered, often solitary, graves, while larger cemeteries remain a rare phenomenon. One such notable exception may be the Kvassheim cemetery, situated in Jæren, Rogaland, in south-western Norway, in use from Late Pre-Roman to Viking times, mainly in the Late Roman and Migration Periods (G. Lillehammer 1996, earlier literature ibid.). This necropolis contains approximately 250 barrows, but not all of them have been excavated. Inhumation remained the dominant burial practice, with a handful of cremation graves in evidence as well.

Two other examples of large cemeteries with inhumation burials, Hjemsted and Sejlflod, were situated in Jutland. They also offer insight into the transition from Late Roman to the Early Germanic Iron Age (J. N. Nielsen 1982; 2000; P. Ethelberg 1986; J. Ringtved 1988)[5]. A different kind of cemetery is represented by a small site at Snartemo, Vest Agder, in south Norway, consisting of five barrows with stone cists for the burials (B. Hougen 1935). Two of them were cremation graves, the other, inhumation ones. Differences in their topographical position distinguished richly equipped graves II and V containing, among other items, sumptuous weapon sets and glass vessels (E. Straume 1987: 98). A single, dispersed grave mound with a rich female burial from Krosshaug, Rogaland revealed another form of Migration Period burial rite (B. Magnus 1975).

The decline in the number of grave goods corresponds to an increase in the number of settlement finds dated to the Early Germanic Iron Age. The development of such economic centres started as early as the Late Roman Period continuing to flourish during Early Germanic Iron Age. These settlements, regarded as trading sites and central places, are characterised by thick cultural layers and a distinct accumulation of precious metals (*denari*, *solidi*, currency gold, jewellery etc.), pieces of imported trade goods, clear indications of handicraft (e.g. bronze castings and goldsmiths' work) as well as a greatly increased number of metal objects compared with other settlements. A representative example appears to be Sorte Muld, placed near Svaneke on Bornholm, known as "gold-rich" since the end of the Middle Ages (O. Klindt-Jensen 1957: 17–43; M. Watt 1991). Excavations and surveys supplemented by an extensive use of metal detectors produced a lot of finds, including weights, pieces of bullion, hoards of silver and gold coins and many sherds from various types of glass vessels, imported particularly from provincial Roman and Frankish areas. This has been supplemented by a massive find of impressed figure foils, *guldgubber*, about 2300 pieces in all (M. Watt 1987). These foils may depict a human figure of either sex or an animal. They occur exclusively in Scandinavia, only to be found in Denmark, Sweden and Norway (M. Watt 1992: 219–225, Figs. 12, 14). They have been discovered mostly in connection with large settlements regarded as a form of sacrificial payment and legitimisation of the demand for power by the ruling leader/prince (K. Hauck 1992).

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[5] The latter are rare examples of necropoli excavated methodically in full in modern times, while most of the graves had been discovered during amateur excavations in the 19th c. or at the beginning of 20th c. (comp. U. Lund Hansen 1971).

A significant number of trading sites and central places has been recorded especially on Danish islands and Jutland (S. Jensen & M. Watt 1993), although it may be a result of intensive archaeological research carried out in this area. The recent investigations in Scania have revealed the existence of such a settlement at Uppåkra (B. Stjernquist 1995; B. Hårdh 1999). Among Danish market places particularly noteworthy is the central complex around Gudme in south-eastern Funen. It is accompanied by several sites along the coast at Lundeborg, where landing sites with evidence for trade and crafts have been found (P. O. Thomsen 1991; H. Thrane 1993; P. O. Nielsen, K. Randsborg & H. Thrane 1994). While it is difficult to rank the central places in terms of importance Gudme may be regarded as one of the major "ports-of-trade" in this part of the Baltic basin. Such an importance for eastern Scandinavia and its counterparts may be ascribed to Helgö, functioning in the Mälar valley since the later phase of Early Germanic Iron Age (W. Holmqvist et al. 1961; 1972).

The evidence of central places points to the concentration of power and dominance in a given area as well as in the main settlement regions. Among them especially south Scandinavia has attracted attention as a traditional intermediary and organiser of trading-routes stemming from the European mainland, including Roman provinces on one hand and Black Sea area on the other (L. Bender Jørgensen 1986; U. Lund Hansen 1987; J. Werner 1988). This large territory was far from being a cultural monolith. A good example of its differentiation appears to be Jutland where two groups, southern and northern, could be distinguished (J. Ringtved 1988: 98–112, Figs. 1–14). Regional differences are evidenced by the burial practice (e.g. the presence of coffins and stone cists), the votive practice (deposition of hoards and single finds in wet and dry areas) and distribution of different types of pottery and ornaments.

The northern Jutlandic group revealed significant connections with south-western Norway expressed even by a migration from the former to the Norwegian seashore. Kvassheim cemetery mentioned above might be a confirmation of such an assumption (M. Mortensen 1992). The necropolis at Kvassheim revealed stronger similarities both in burial practice and in the occurrence of different artefacts with north Jutland than with the rest of western Norway. Norwegian imports found in Jutland indicated an opposite direction of contact. It is worth pointing out that some of these imports include specimens recorded almost exclusively in Norway, namely a spade-footed Horr/ Kvassheim brooch (see below, Chapter 2.3.) and a bucket-shaped pot (A. Herteig 1955; comp. also H. Shetelig 1904; B. Magnus 1984). Both types of artefact may be regarded as the indicators of ethnic identity, unknown outside Norway.

During the Migration Period the south and west coast of Norway witnessed a marked population growth and settlement expansion (J. Petersen 1954; E. Straume 1962; B. Myhre 1982; 1983; 1987). The largest concentrations of finds, especially of graves, come from Jæren in Rogaland and Lista in Vest Agder, regions situated along the coast, although there were also significant settlement areas in Hordaland, west Norway as well as along the Oslo Fjord. The latter region had formed a single cultural unit with the neighbouring Bohuslän, in western Sweden (I. Särlvik 1982). The long-distance commercial and cultural links have been traditionally observed between Norway and its counterparts bordering the North Sea including Scandinavian, mostly Norwegian, migration to Anglian England (J. Reichstein 1975; J. Hines 1984).

The partial inland migration may be clearly visible in the case of Rogaland being regarded as a donor-area for the north Norway population, especially the Lofoten region (T. Sjøvold 1962). The migration from Rogaland took place at the turn of the Late Roman and Early Migration Periods, which may be confirmed by the significant increase in the number of finds dated to these times (T. Sjøvold 1962: Fig. 17). Apart from the Lofoten islands, north Scandinavia revealed concentrations of settlement in Trøndelag, Norway and Norrland, Sweden (P. Ramqvist 1983; 1991; G. Stamsø Munch, O. S. Johansen & I. Larssen 1987). These territories remained an important source of bog iron as well as being areas of reindeer and moose hunting (G. Magnusson 1991).

The Baltic islands, Bornholm, Öland and Gotland, functioned as a contact zone of a kind, which is evidenced by the presence of forms typical of both the western and eastern Baltic basin (N. Åberg 1923; M. Stenberger 1933; B. Nerman 1935; O. Klindt-Jensen 1957; L. Jørgensen 1990). Their geographical position favoured a separate development with a local range of artefacts characteristic exclusively for a given area, e.g. Bornholm brooches being an indicator of Bornholm costume (see below, Chapter 2.2.). However, it is also possible to point out common ornaments linking the islands in question, as relief fibulae Gotland/Öland/Bornholm group, featuring bird heads placed along the edge of the head-plate (U. Näsman 1984b). The connections between the islands and the Scandinavian mainland could be especially visible in the case of Gotland and the Mälar region in central Sweden, although they were particularly lively during Late Germanic Iron Age (comp. J. P. Lamm & H. Å. Nordström 1983; K. Høilund Nielsen 1991).

The Mälar valley with its rich graves at Vendel cemetery could be a representative example of significant changes in Scandinavian society during the Late Germanic Iron Age. It brought a further development of centralisation of power, the specialisation of the role of the leader and finally, a transition from tribal units headed by chieftains to petty kingdoms and an early state structure (L. Hedeager 1992). The increase in number of well-furnished graves, both female and male, makes it possible to follow the unification of the interregional Germanic culture and the establishment of a military elite (K. Høilund Nielsen 1987; L. Jørgensen & A. Nørgård Jørgensen 1997).

The Finnish lands

The east Baltic coast, from Courland and the region of Daugava mouth through Estonia up to the south Finland, was occupied by the Tarand Culture (H. Moora 1938, Fig. 90; M. Schmiedehelm 1969; A. Vasks 1997: 57–61, 68–69). The population settled there has been associated with Finnish tribes, the Baltic Finns, the ancestors of the Estonians, Livs and the inhabitants of present-day Finland (H. Moora 1938: 660–665; S. Laul 1982; Ł. Okulicz 1993). The process of formation of the culture in question was completed in the Early Roman Period, although, according to the latest research in certain areas, such as western and northern Estonia, it started much earlier (V. Lang 1996: 304, 590–591).

The main feature of the Tarand Culture remains its burial practice with graves contained within stone constructions. A typical tarand grave was a rectangular structure of large stones. On one or both sides of this rectangle similar stone enclosures were added successively (M. Schmiedehelm 1955: 49, Pls. III–XIII). A number of tarand graves formed an elongated east-west construction as much as 60–70 m in length and 10–18 m wide. Cemetery B at Jäbara, Estonia seems to be most typical: 43 m in length and 17–18 m in width (M. Schmiedehelm 1955: 74–90). The stone settings were covered by a mound of earth and small stones. The dead were buried either burnt or unburnt, but in both cases it is impossible to distinguish individual graves or closed assemblages. The grave goods were scattered among the stone constructions and it is only possible to identify concentrations of artefacts assigned to particular phases of the necropolis.

The border areas of the Tarand Culture produced variations in the stone constructions, e.g. Ošbirže in north Kurzeme/Courland, without separate enclosures (V. Urtans 1970: 78–79; pers. comm. J. Ciglis, Riga). In the Isokylä region near Salo, south-western Finland, the stone settings were supplemented with additional stone structures – cairns (M. Schauman-Lönnquist 1988). These were built of stones or of earth and stone forming a more or less rounded shape above the ground. They contained cremation graves. In most cases the cairns seem to be the graves of a single individual, although some of them may contain several burials, e.g. Palomäki cairn (M. Schauman-Lönnquist 1988: 64–65).

The Tarand Culture people identified with the *Sithones*, known to Tacitus [*Germania*, 45, 27–28] and placed on the border of the barbarous world (see J. Svennung 1962; W. Nowakowski

1992: 221, 227) did not function without any links with the rest of the world. A number of Roman imports as well as artefacts characteristic for south Baltic zone, like eye brooches Prussian series, point to long-distance connections of the Tarand Culture (H. Moora 1938: 62–65; U. Salo 1968; M. Schauman-Lönnquist 1991; W. Nowakowski, in print). The Lower Vistula and Samland played a significant role as intermediary in the dissemination of stylistic novelties in the tarand graves area. Influences of the latter could be clearly visible in the case of star- and spade-footed brooches (see below, Chapter 2.3.). Another important partner of the Tarand Culture appeared to be Scandinavia. This may be confirmed by the distribution of cruciform fibulae, clasps buttons and bird pins (E. Kivikoski 1939; 1947; J. Reichstein 1975; J. Hines 1993).

The development of tarand graves stopped after the 5th c. when there were no new added enclosures. The dead began to be buried in older constructions. There are several tarand cemeteries after AD 500, e.g. Toila in Estonia, with its second phase dated to the 6th–7th cc. and finds assigned even to the 8th–9th cc. (M. Schmiedehelm 1955: 60). During later phases of Middle Iron Age, which corresponds to the Late Migration Period, the southern border of the territory settled by the Baltic Finns became smaller as a result of Balt pressure. The Balt Lettigallians were moving to the north establishing their necropoli alongside the Finnish ones at Cēsis, Alūksne, Balvia and Ludza districts, e.g. Balt cemeteries at Upmaļi, Nauduševa and Kivti appeared there in the 7th–8th cc. (Latvijas PSR ... 1974: 331, 336, 342, earlier literature ibid.).

2.2. Crossbow brooches with a long narrow foot. Type Schönwarling/Skowarcz and its development

Introduction

The vast group of Migration Period crossbow brooches A.VI,2[1] with a full catch-plate includes specimens with a long narrow foot. The foot is longer than the catch-plate or of equal length. The wide spatial distribution of the fibulae in question in the Baltic basin has already been noted by some researchers (N. Åberg 1919: 53–66; U. Näsman 1984a: Map 12a; A. Bitner-Wróblewska 1992a: 251–256; 1992b). But all the attempts of more detailed analysis of these brooches (see N. Åberg 1919; A. Bitner-Wróblewska 1992a) seem to be limited by unresolved terminological and typological problems.

Hitherto, this category of ornaments was named differently way. More frequently a long description was used, as *"Armbrustfibeln mit kurzem Nadelhalter und langem Fuß"* (crossbow brooches with a short catch-plate and long foot) or *"Armbrustfibeln mit Nadelscheide und geradem Fuß"* (crossbow brooches with a full catch-plate and long narrow foot). Both these names were used at the beginning of 20th c. (O. Tischler & H. Kemke 1902)[2] and lately (K. Godłowski 1980; A. Bitner-Wróblewska 1992a; 1992b)[3]. Instead of the long description some authors referred to figures in their papers (N. Åberg 1919: 53–66; K. Godłowski 1974: 71). Others even went too far in their attempt to simplify the terminology as, for example U. Näsman (1984a: 116, Map 12a) who called the fibulae in question simply *"armborstfibulor"* (crossbow brooches). This might have been useful when Näsman was comparing their distribution in northern Europe with the distribution of *"korsformiga fibulor"* (cruciform brooches) but created a danger of mixing up very different types of artefacts. The specimens with long, narrow foot are only one type among different groups of crossbow brooches with full-catch plate, which were very popular in the eastern Baltic basin[4].

Another way of classification of crossbow fibulae with long foot was presented by M. Schulze-Dörrlamm (1986: 650–652, Figs. 72–74) who distinguished the type Schönwarling. However, this term relates only to one group of brooches in question. This type features a long foot, narrower at the end, decorated by transverse grooves and with a short catch-plate (Pl. III, 1). The bow is short, semicircular in profile with a narrow handle for axis of the spring. The spring is wide. Even though these criteria seem to be quite specific they were not sufficiently explicit as shown by M. Kazanski's paper (1991: 4–6, Fig. 2). He included into type Schönwarling a brooch from Osowa which is similar to a different type according to M. Schulze-Dörrlamm's classification (see

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[1] O. Almgren generally described such brooches as *"... verschiedene Formen des Nadelhalters entstehen..."* (O. Almgren 1923: 85–87).

[2] *"Tafel V. Fibeln. Figs. 4–14. 17. 19. 20 Armbrustfibeln mit kurzem Nadelhalter und langem Fuß... Figs. 15. 21–23 Armbrustfibeln mit Nadelscheide und geradem Fuß"* – O. Tischler & H. Kemke 1902: Pl. V.

[3] *"... eine Armbrustfibel mit kurzem, vollem Nadelhalter und starkem, ausgedehntem Fuß..."* – K. Godlowski 1980: 71; *"... specimens with the foot visibly extended beyond the length of a short catch-plate, and those featuring a foot flush with the catch-plate..."* – A. Bitner-Wróblewska 1992b: 29.

[4] For example the star- and spade-footed brooches (*Stern- und Schaufelfußfibeln*) – see A. Bitner-Wróblewska 1991a, or the trapeze-footed fibulae (*Armbrustfibeln mit sich verbreiterndem Fuß*) – see A. Bitner-Wróblewska 1992b: 32–33; W. Nowakowski 1996: 160.

type Duraton, M. Schulze-Dörrlamm 1986: 644) as well as several items from Bornholm completely outside her typology.

An earlier attempt made by the author (A. Bitner-Wróblewska 1992b) to classify the fibulae in question revealed the lack of sufficiently clear criteria for any further subdivision apart from the general features of the construction. This marked differentiation among brooches with full catch-plate and long foot has been noticed also by others (H. Machajewski 1992b).

The question arises on how to combine the need to arrange this sizeable material avoiding misunderstandings like the ones presented above including at the same time the terminology already in use. It should be remembered that the name "type Schönwarling" has already been used earlier in literature (L. Jørgensen 1989: 181; M. Kazanski 1991: 4–6; W. Nowakowski 1996: 105). In fact, the crossbow brooch with a long foot discovered at Schönwarling (nowadays, Skowarcz) was a unique specimen – an import from the neighbouring Balt lands lying to the east of this Wielbark Culture site. Specimens of this type occur in a significant concentration in the Balt region east of the Lower Vistula (see Appendix B). Nevertheless the author proposes to retain the name Schönwarling for this type of brooches adding the contemporary name of the site, Skowarcz.

The author suggests to order the crossbow brooches with full catch-plate and a long, narrow foot using the general criterion of construction, namely, the length of catch-plate. There is a group of specimens with the foot visibly extended beyond the short catch-plate, which seems to be typologically earlier and another group featuring a foot flush with the catch-plate. This criterion was applied already by O. Tischler (1879: 182–183). A further classification of these artefacts appears to lead to a very precise but totally useless system[5]. Instead, the author prefers the stylistic analysis of these two groups connected with their spatial distribution. What such an analysis demonstrates is the existence of some local features and the way of spreading the stylistic idea over the area in question.

There are two main types, namely "type Schönwarling/Skowarcz" (with a short catch-plate) and "type Dollkeim/Kovrovo" (with a long catch-plate). Some brooches have a catch-plate shorter than the length of the foot. They are regarded as a variant of type Dollkeim/Kovrovo ("intermediate variant"). The latter type also has a local variant ("Lithuanian variant") with a large metope on the head and crosspiece at the end of the bow. A different, local group is represented by fibulae from Bornholm, featuring a knob on the head projecting beyond the spring. They have been called "type Bornholm".

Schönwarling/Skowarcz brooches

Introduction

Apart from the crossbow construction and the short catch-plate there are several common interregional features characteristic for the brooches in question (comp. Pls. III, 1–2; IV, 10; V). Their spring is rather wide, with 10 or 14 coils. Hemispherical knobs, profiled at the base or cylindrical, appear on the ends of the spring axis. Both the bow and the foot are semicircular or triangular in section. Transverse grooves are the most frequent ornament. It may be very simple, with several, quite delicate transverse grooves in the end of the foot as well as in the ends of the bow (Pls. IV, 10; V, 5–6). Sometimes the ornament on the foot or both the foot and the bow covers their entire surface and the transverse grooves are very deep (Pl. V, 7–8). Isolated specimens from Dollkeim/Kovrovo Culture (Kovrovo, grave 146) as well as from Gotland (Bjärby) and Öland (Sandby, Torsborg) feature stamp ornamentation (Pls. III, 6; V, 4). An exception appears to be a silver brooch from Warnikam, grave 65, Dollkeim/Kovrovo Culture

[5] An example may be the highly developed classification system of Late Roman crossbow brooches with full catch-plate proposed by M. Schulze (1977) with a complicated system of numbers and letters which makes it completely useless. Schulze later departed from such methods referring particular types to the name of a site instead of to a long list of numbers (comp. M. Schulze-Dörrlamm 1986).

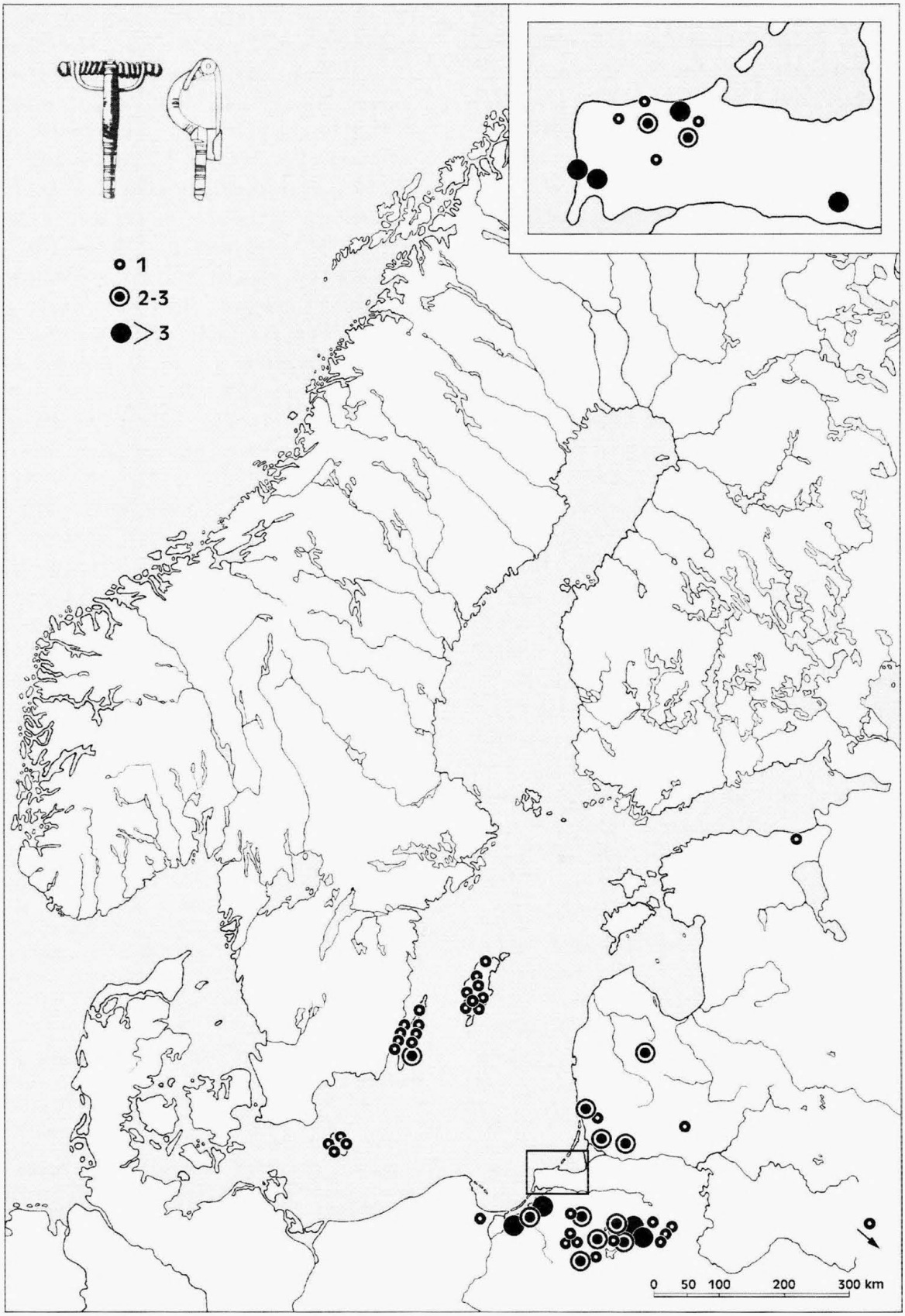

Fig. 3. Distribution of Schönwarling/Skowarcz brooches.

(Pl. IV, 1) with a relief decoration unusual for this type of artefact also in this part of the Baltic Sea. Such an ornament is related to the Scandinavian Nydam style (L. Karlsson 1983: 12–19, 130–131).

The proportion of the spring length in relation to the size of the fibula and the proportion of the bow in relation to the foot are almost the same or very similar in different areas (see Pl. V, 1–6)[6]. Apart from these more general stylistic similarities it is possible to note also a few local, regional features. But it should be mentioned that some of these pertain to isolated specimens showing rather the stylistic differentiation in a given area.

Type Schönwarling/Skowarcz occurs in concentrations primarily in the Dollkeim/Kovrovo Culture (Fig. 3)[7]. Much smaller concentrations may be observed in the Bogaczewo and Sudovian Cultures (Gołdap area) as well as on Öland and Gotland. A small number of finds are recorded in Wielbark Culture and West Lithuanian Group[8]. Finally, single dispersed specimens are known from Bornholm, the Lower Nemunas and Central Lithuanian Groups, Suwałki area of Sudovian Culture and Semigallian Flat Cemeteries Group. The author has identified 137 specimens (see Appendix B) as compared to the three brooches known to M. Schulze-Dörrlamm from the area in question (1986: list of finds no 18). Of course, one should bear in mind that the author's definition of Schönwarling/Skowarcz brooches is wider than the one used by M. Schulze-Dörrlamm. In any case, the distribution range of type Schönwarling/Skowarcz is much wider than previously thought.

The Balt lands

A significant concentration of brooches in question is recorded in the Dollkeim/Kovrovo Culture with Samland as a main centre (Fig. 3). Other areas of the Balt territory produced much fewer finds (see histogram – Fig. 4). It is worth noting the comparatively high uniformity of type Schönwarling/Skowarcz, especially visible in the region of their greatest concentration.

The existence of iron specimens appears to be an eastern Baltic feature, known from the Dollkeim/Kovrovo Culture (Kovrovo, grave 144; Prostornoe) and Sudovian Culture (Osowa, barrow 53)[9]. It is worth noting that the brooch from Prostornoe (Pl. VI, 1) is decorated with brass wire in an imitation of transverse grooves. This kind of ornament, *Tauschierung*, occurs also on buckles and horse harness from south-eastern Baltic coast (J. Heydeck 1895: Pl. IX 15; M. Kaczyński et al. 1987: 145 no 568). Its origin is not Balt, rather it is associated with the interregional Germanic decorative style (W. Holmqvist 1951; W. Menghin 1994).

The bow of the just cited iron brooch from Osowa (Pl. VI, 3) is flat and much wider than usually in specimens of type Schönwarling/Skowarcz. M. Schulze-Dörrlamm described the brooch from Osowa as similar to her type Duraton (M. Schulze-Dörrlamm 1986: 644), but it should be treated rather as a variation of type Schönwarling/Skowarcz (comp. M. Kazanski 1991: 5). This may be confirmed by the other iron item with flat bow, namely a brooch from Kovrovo, grave 144 (Pl. VI, 2).

An even more rare variant of the type in question is represented by the specimen from Suchodoły in Sudovian Culture (Pl. VI, 4). It has a long, flat foot. The bow is adorned by rich engraved ornamentation. Two others fibulae with a flat foot are recorded on Gotland (Roes, Grötlingbo parish) and Öland (Sandby). They differ from the Balt item by the presence of deep transverse grooves in the upper part of the foot (Pl. VI, 5–6).

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[6] Compare Kovrovo, grave 150 (Samland), Bjärby (Gotland) and Sorte Muld (Bornholm) or Kovrovo, grave 183 (Samland), Torslunda (Öland) and Roes, Rone parish (Gotland).

[7] As noted in Chapter 1, a greater part of materials from former East Prussia was destroyed during WW II. Surviving relevant information tends to be very laconic. Consequently the discussion presented below includes only the brooches which could realiably be described as type Schönwarling/Skowarcz or Dollkeim/Kovrovo.

[8] The material collected from Lithuania and Latvia relating to Schönwarling/Skowarcz brooches and their development may not be complete. The manner of publication of Lithuanian or Latvian materials frequently makes it difficult to identify the specimens as to their type.

[9] Compare the distribution of Late Roman iron crossbow brooches A. 161–162, especially in evidence in the Przeworsk and Wielbark Culture as well as in Balt lands. Only single dispersed finds are known from other parts of *Barbaricum*, for example, Slusegård on Bornholm (W. Nowakowski 1995: 30–35). It is also worth stressing that the absence of iron crossbow brooches in the Baltic islands should not be interpreted as a deficiency of archaeological sources. Storerooms of, e.g., Bornholms Museum, abound in iron artefacts, sometimes badly preserved, dated to Pre-Roman and Roman Iron Age.

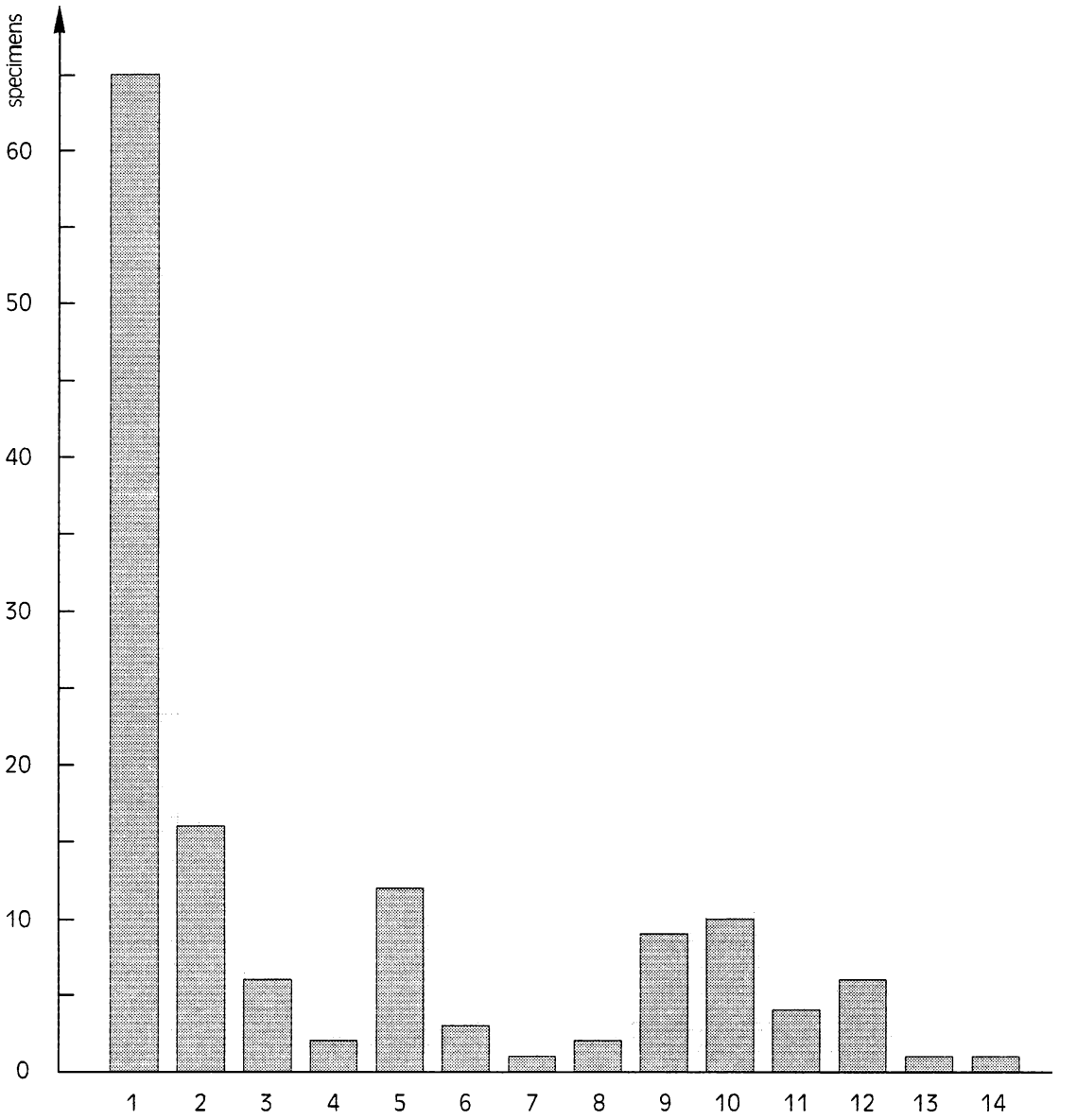

Fig. 4. Histogram for Schönwarling/Skowarcz brooches. 1 - Dollkeim/Kovrovo Culture; 2 - Bogaczewo Culture; 3 - West Lithuanian Group; 4 - Lower Nemunas Group; 5 - Sudovian Culture, Gołdap area; 6 - Sudovian Culture, Suwałki area; 7 - Central Lithuanian Group; 8 - Semigallian Flat Cemeteries Group; 9 - Gotland; 10 - Öland; 11 - Bornholm; 12 - Wielbark Culture; 13 - Tarand Culture; 14 - Kiev Culture.

There is no obvious evidence of direct relationship between Baltic islands finds and the brooch from the Sudovian Culture. They are more likely to be the result of independent development.

Last, but not least it is necessary to mention isolated dispersed finds known from outside the concentration in the Balt lands, but regarded as a result of direct Balt influences. Such is the character of a specimen from the Finnish lands found at Kohtla Järve, in Estonia. Close connections between Estonia and Samland will be discussed below in association with the star- and spade-footed crossbow brooches (see Chapter 2.3.).

Influences from Samland reached as far south-east as the Kiev Culture. A Schönwarling/ Skowarcz brooch was discovered at Babina Gora, in the Dneper River basin (M. Kazanski 2000). Apart from featuring interregional features characteristic for all Schönwarling/Skowarcz brooches the specimen in question displays a local trait, i.e., a twisted foot. The question of links connecting Balt lands with south-eastern Europe appears also in the case of spade-footed fibulae and of brooches type Sensburg/Mrągowo (see Chapters 2.3. and 2.4., the latter summarising the problem).

A single isolated specimen of type Schönwarling/Skowarcz is known as far to the west as the lower Rhine. It was found in a Roman well at Eschweiler, Germany (F. Oelmann 1945: 384–385, Pl. 61: 5; M. Schulze-Dörrlamm 1986: 650–652, Fig. 72: 1). The find may be regarded as a Barbarian import from the south-eastern Baltic coast but it may have also originated from the Baltic islands. The specimen from Eschweiler together with the fibulae with a rhomboid foot, type Ruuthsbo (M. Schulze-Dörrlamm 1986: 626–628), from Dalheim and Strassburg is treated as evidence of the presence of small Germanic groups on the River Rhine (M. Schulze-Dörrlamm 1986: 690, Fig. 106).

The Wielbark Culture

There are 6 specimens recorded in the Wielbark Culture – one from Skowarcz and five from Frombork (Pls. III, 1; VII, 1 – 5). All of them were found around the Vistula delta, a region traditionally connected with Samland. They may be treated as imports from the latter territory or generally from the Dollkeim/Kovrovo Culture.

It is worth considering whether the hoard from Frombork (F. E. Peiser & H. Kemke 1914; K. Godłowski 1972) might not be associated with the Wielbark Culture. The question of cultural identity of the Frombork hoard has been discussed in literature. After hesitating between Balt and Wielbark origin (K. Godłowski 1970: 41, 56; 1972: 68) K. Godłowski finally concluded that the hoard is a Balt one (K. Godłowski 1980: 80; 1981: 108–109). His opinion was swayed by the character of the hoard in question which apparently belonged to an itinerant goldsmith and contained typically Balt artefacts. The Frombork hoard differs completely from other Wielbark Culture hoards dated to the Migration Period featuring gold coins and ornaments. At the same time it should be recalled that not a single Balt hoard is known from the period in question. In fact, the dividing line running across the region east of the Lower Vistula in the second half of the 5th and early 6th c. is defined particularly by the presence of dissimilar categories of archaeological evidence to the west and to the east of it: hoards of *solidi*, associated with the Germanic *Vidivarii*, successors of the Wielbark Culture, and cremation cemeteries, associated with the Balt *Aestii* – (K. Godłowski 1989: 34–35, Map 4). The Germanic, Wielbark Culture, origin of the Frombork hoard may be confirmed by the recently discovered hoard from Łubiana, west of the Lower Vistula (M. Mączyńska 1994: 149–157; 1996: 211–218; D. Rudnicka 1991: 28–30). It contains *ca* 2000 items dated to Roman and Migration Periods, including Balt type artefacts. The character of the Łubiana hoard, found in a definitely non-Balt environment, is very similar to the craftsman's hoard from Frombork. This strongly suggests that the Frombork find should be associated with the Wielbark Culture. It is also worth noting that both hoards were deposited on the eastern and western periphery of the Germanic settlement area on the Lower Vistula. Perhaps this is no accident; one may suppose that the hoards were buried to mark the area of settlement.

Gotland, Öland, Bornholm

Across the Baltic Sea, in the GOB area feature another concentration of type Schönwarling/ Skowarcz brooches although much smaller than that one in Balt lands (Fig. 3). Stylistic similarities between fibulae finds from both sides of the Baltic have been discussed earlier but specimens from the Baltic islands appear to be much more heterogeneous, characterised by the presence of a number of regional features.

There is a group of very small brooches, less than 5 cm long, e.g., Møllegård, Vi Alvar (Pl. VIII, 10). Their spring may have been very short,

no more than 4 or 6 coils. Some brooches recorded in the Baltic islands have a faceted surface of the bow or foot, e.g. items from Smørenge (Pl. V, 3) on Bornholm (only 5.2 cm long) or from Folkeslunda on Öland. The latter is quite unusual, with a small elongation on the head (comp. type Bornholm) and a thickened end of the foot (see also Kälder, grave 11; Vi Alvar). The brooch from Folkeslunda might have had a double chord. The spring is now partly destroyed, but it is still too short as compared to the length of the axis. This feature namely, the presence of a double chord, requires a separate discussion, which will be given below in connection with certain fibulae type Dollkeim/Kovrovo.

A brooch from Hablingbo parish, Gotland (Pl. V, 7) is an unusual specimen in the Scandinavian environment because of a rectangular metope on the top of the bow with a stamp ornament. This feature is seen on Balt fibulae with a star- and spade-like foot (A. Bitner-Wróblewska 1991a; see also Chapter 2.3.). The knobs at the ends of the spring of the Hablingbo brooch are spherical. This pattern is also known from Balt lands (comp. Kovrovo, grave 147).

Chronology

M. Schulze-Dörrlamm, who distinguished the type Schönwarling, dated it to the latter half of the 5th c. (M. Schulze-Dörrlamm 1986: 652) basing on the Frombork hoard which contains a Theodosius II *solidus* struck in 430 AD; the hoard itself, in her opinion, did not contain Schönwarling/Skowarcz brooches but only specimens similar to them. This chronology is supported by the fact that a Schönwarling/Skowarcz fibula co-occurred in grave 11 at Kobbeå (Pl. VIII, 1–9) together with a *Bügelfibel* with a semicircular plate on the head featuring three knobs and diamond-shaped foot.

As has been noted earlier, a specimen of the discussed type had been discovered outside the Baltic basin in a Roman well at Eschweiler. It rested at the bottom of a well filled with material datable to the end of the 4th c. Such an early context ought to have prompted a revision of the chronology of the type Schönwarling/Skowarcz or at least some discussion of the problem but M. Schulze Dörrlamm left it without any comment.

The discussion presented above reveals that the main concentration of type Schönwarling/Skowarcz occurs on Balt territory in the Dollkeim/Kovrovo Culture where it is assigned to phase 5. of that culture, according to W. Nowakowski (1996: 53). In absolute chronology this corresponds to the end of the 4th c. and the first half of the 5th c. A combination diagram (Fig. 5) reveals the connection of the type in question with both the earlier and the later phases of the Dollkeim/Kovrovo Culture.

Type Schönwarling/Skowarcz fibulae co-occur in assemblages with stamp-decorated belt sets (Pl. III, 2–8), being one of the main indicators of phase 5. (Early Migration Period), but they are also associated with trapeze-footed crossbow brooches assigned to phase 4. (W. Nowakowski 1996: 52–53). The latest assemblages with type Schönwarling/Skowarcz seem to be graves 60 and 65 at Warnikam (Pl. IV, 1–9). The latter produced a glass type Snartemo beaker although, according to recent research, it might be dated within the 1st half of the 5th c. (E. Straume 1989; see also T. Stawiarska 2000, earlier literature ibid.). Warnikam, grave 60 yielded a crossbow brooch with a crosspiece on the end of the foot (*Schlußkreuzfibel*), which becomes one of the most popular Balt ornaments dated to the Late Migration Period (N. Åberg 1919: 120–124, Figs. 174–178). While a distinct characteristic of Late Migration Period fibulae is that their length is approximately equal to their width, a slender specimen from grave 60 at Warnikam appears to be one of the earliest examples.

Although the Frombork hoard mentioned earlier may have been connected with the Wielbark Culture the type Schönwarling/Skowarcz brooches it contained are undoubtedly Balt, namely imports from the Dollkeim/Kovrovo Culture. As such, the hoard may be taken into consideration in discussing the chronology of fibula type in question in the Dollkeim/Kovrovo Culture. The presence of the Theodosius II *solidus* in the Frombork hoard makes it especially important.

graves with type Schönwarling/ Skowarcz	trapeze-footed fibula	type Dollkeim/ Kovrovo	oval buckle	tongue-shaped strap end	bow-curved strap end	buckle with metope	Snar-temo type	Schluß-kreuzfibel
Warnikam 41	●	●						
Kovrovo 45			●					
Pesochnoe 21			●					
Prostornoe I			●					
Kovrovo 146			●	●				
Kovrovo 163				●		●		
Kovrovo 178				●		●		
Eisliethen 186					●	●		
Kovrovo 106		●				●		
Kovrovo 183		●						
Warnikam 65							●	
Warnikam 60	●							●

Fig. 5. A combination diagram for graves featuring type Schönwarling/Skowarcz fibulae in Dollkeim/ Kovrovo Culture.

The coin, struck in 430 AD[10] helps to refine the absolute chronology of Schönwarling/Skowarcz brooches. Indeed, these fibulae were in use around that date but the author suggests that it is not sound to treat 430 AD as the time of their appearance. If we correlate the above supposition with the relative chronology of the Dollkeim/Kovrovo Culture on the one hand and with the archaeological context of the Eschweiler well find and its chronological consequences on the other, it will be possible to push back the dating of the Schönwarling/Skowarcz as early as the end of the 4th and beginning of the 5th c.

The above conclusion applies mainly to specimens from the Dollkeim/Kovrovo Culture and the territories traditionally connected with it, as for example the Bogaczewo Culture, where brooches of the type in question were associated with stamp-decorated buckles with a metope (e.g. Miętkie, grave 66). In other Balt areas type Schönwarling/Skowarcz fibulae might have continued in use longer. They co-occur with bracelets with thickened terminals, e.g. Aukštkiemiai, grave 107; Laistai, grave 6, which tend to appear in an apparently slightly later context (A. Bitner-Wróblewska 1992a: 251).

[10] In earlier literature the date of issue of the Frombork *solidus* was given as 448 AD (F. E. Peiser & H. Kemke 1914; S. Bolin 1926: 207; K. Godłowski 1972). But similar *solidi* bearing the inscription VOT XXX MVLT XXXX may have been struck as early as around 430 AD (see K. Godłowski 1981: 86 footnote 15; earlier literature ibid.).

The chronology of finds from the Baltic islands based, almost without exception, on B. Nerman's work regarding material from Gotland (B. Nerman 1935). Type Schönwarling/Skowarcz specimens were assigned to the later stage of the Migration Period, i.e., the Nerman Period VI:2. The majority have been recorded without any context as loose finds or as belonging to old collections. There are only a few closed finds, as for example, grave from Roes where a Schönwarling/Skowarcz fibula co-occurred with late open-work Gotland strap ends featuring a stylised animal head at its upper end (Pl. VI, 6–8).

Grave 11 from Kälder, Gotland, produced form B1 clasps with a plain button according to J. Hines's classification (J. Hines 1993: 15–16, 112). They represent the most common form of buttons occurring throughout the history of form B1 clasps, from the earliest specimens known from the Almgren and Nerman Period V:1 (O. Almgren & B. Nerman 1923) through the large numbers dated to Bakka's *Stufe III* and *IV* (E. Bakka 1977); however, they are more common in the latter half of the Migration Period. The same broad chronology fits the Vi Alvar grave in Öland, which also produced plain buttons as well as a pin (Pl.VIII, 10–11) although J. Hines assigned it to the Almgren and Nerman Period V:2 (J. Hines 1993: 31, Fig. 64b).

Among the small number of finds from Bornholm there is only a single closed assemblage namely, the already mentioned grave 11 at Kobbeå (Pl. VIII, 1–9). Apart from the Schönwarling/Skowarcz fibula and the *Bügelfibel* it also contained a crossbow Bornholm type specimen as well as an annular brooch. The assemblage is dated to the later stage of the Early Germanic Iron Age which in absolute chronology corresponds to the latter half of the 5th and the beginning of the 6th c. (A. Nørgård Jørgensen 1991a: 137).

Summarising the discussion of the chronology of the type Schönwarling/Skowarcz, it is necessary to underline the evidently earlier chronological position of the Balt, particularly Dollkeim/Kovrovo Culture specimens. Nevertheless, it appears that some of the Scandinavian brooches of type Schönwarling/Skowarcz may have a slightly earlier dating than previously thought.

Dollkeim/Kovrovo brooches and variants

Type Schönwarling/Skowarcz underwent a further stylistic evolution towards specimens having a long catch-plate. The development took place gradually giving rise to fibulae in which the catch-plate was somewhat shorter than the foot, a so-called intermediate variant (see Appendix C). As a result of the constructional tendency to elongate the catch-plate the type Dollkeim/Kovrovo emerged having a long foot flush with the catch-plate (see Appendix D). Both the foot and the bow are semicircular or triangular in section. The spring is wide; it frequently consists of 10–14 coils. The knobs on the ends of axis are hemispherical, profiled at the base. The most common ornament are transverse grooves (see Pls. IX–XXVII).

Apart from these widespread interregional features there was a number of local patterns. Some of the type Dollkeim/Kovrovo specimens show variation in size, proportions, decoration of the bow, foot as well as of the knobs at the end of the axis.

Intermediate variant

The intermediate variant occurs in concentrations primarily in the Dollkeim/Kovrovo Culture and in Öland (Fig. 6). A much smaller number of finds is known from Gotland. Single specimens have been found in the Bogaczewo Culture, in the Gołdap area of Sudovian Culture, the Samogitian Flat Cemeteries Group as well as the Central Lithuanian Group (see Appendix C).

The fibulae from the Balt lands are stylistically more homogeneous with standard features mentioned above (Pl. IX, 2–4). Transverse grooves are the most frequently recurring ornament. Specimens from the Baltic islands are much more heterogeneous. One remarkable example of their diversity appears in a brooch from Valsnäs, Öland (Pl. IX, 5). Its proportions are different, its length being exactly equal to its width. The spring is very long, with 20 coils. Such proportions are characteristic for Balt fibulae dated to the Late Migration Period, e.g., the massive crossbow

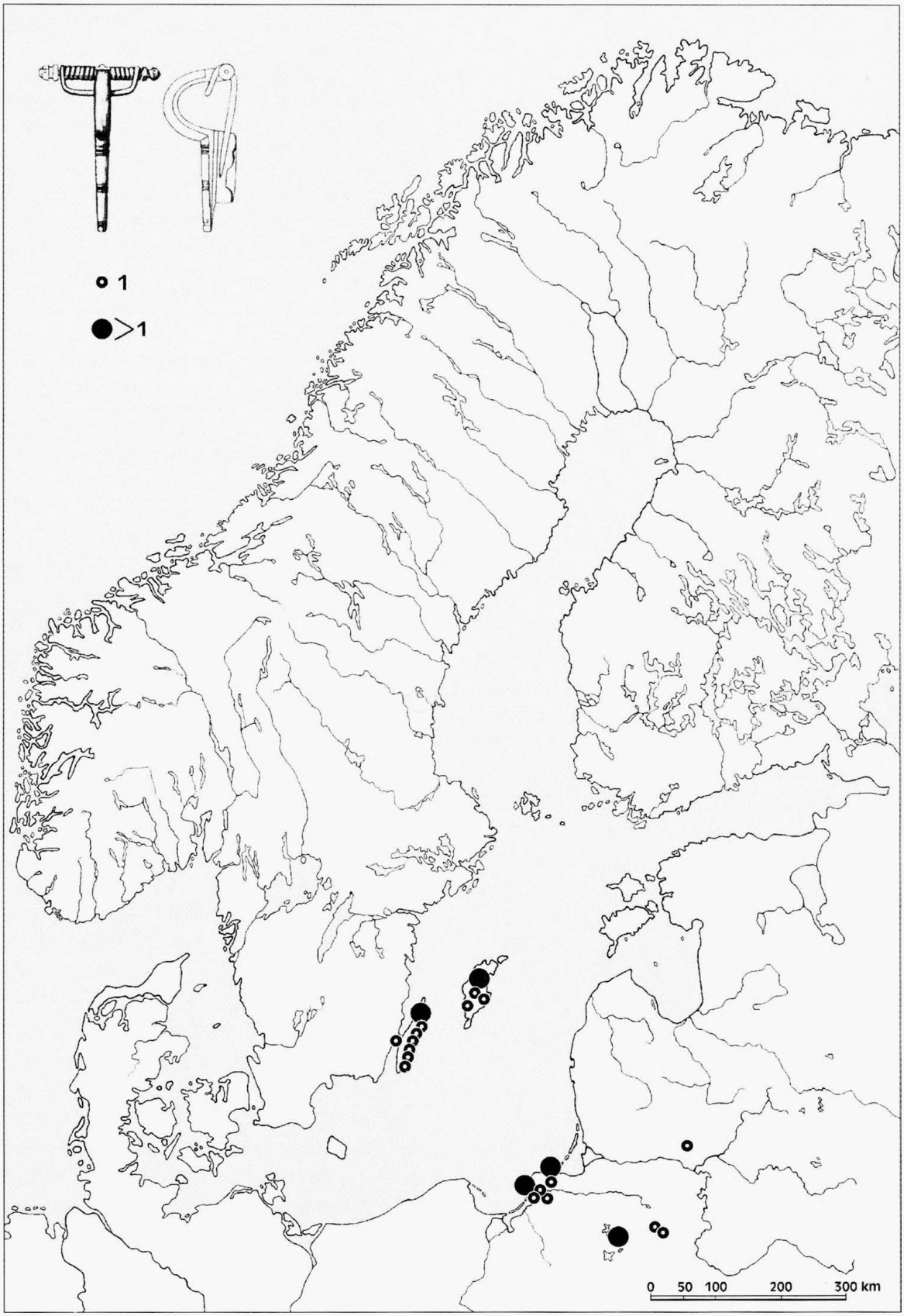

Fig. 6. Distribution of Dollkeim/Kovrovo brooches, intermediate variant.

brooches decorated with rings (comp. N. Åberg 1919: Fig. 4). The item from Valsnäs features an elaborate stamp ornament covering both the foot and the bow. Another slightly similar fibula is known from Gotland, Guldrupe (Pl. IX, 1). The specimen is rather squat, with a stamp ornament.

On the other hand, the intermediate variant is represented in the Baltic islands by a slender fibula from Rosenborg, Öland (Pl. IX, 7). Its catch-plate is slightly shorter than its long and tapering foot, which is thickened at the extremity. This feature is known among some fibulae type Schönwarling/Skowarcz occurring in the GOB area (Folkeslunda, Kälder, Vi Alvar).

It is worth noting that the intermediate variant emerged, without exception, in territories "native" for the type Schönwarling/Skowarcz mainly, Samland and areas traditionally connected with Samland[11] as well as on Öland and Gotland. This is an important remark showing the same direction of the constructional development of ornaments in question on both sides of the Baltic. A further confirmation of the existence of some association between workshops is that most finds are recorded in Samland and Öland apparently by no accident rather, testifying to closer connections between these two areas. It would be interesting to trace and verify such links in the case of other ornaments (see Chapters 2.3. and 2.4.).

Dollkeim/Kovrovo brooches in Balt and Finnish lands

Type Dollkeim/Kovrovo become one of the most popular ornaments in the eastern Baltic basin (Fig. 7). It occurs in concentrations, particularly in the Central Lithuanian and West Lithuanian Groups as well as in the Dollkeim/Kovrovo Culture. Much smaller concentrations may be observed in the Samogitian Flat Cemeteries Group, Lower Nemunas Group, the Gołdap area of Sudovian Culture and the Tarand Culture as well as in the Bogaczewo Culture, Suwałki area of Sudovian Culture and Semigallian Flat Cemeteries Group. Single, isolated finds are known from the East Lithuanian Barrows Culture.

The most frequently repeated ornament are transverse grooves decorating the foot or both the foot and the bow (Pls. XI, 1; XII, 1–2, 7–8; XIV, 1–3). Sometimes they are very deep, in a style of caterpillar-like brooches (*Raupenfibeln*), e.g. Eisliethen, graves 43, 56; Gąsior, grave 297; Grunajki, barrow B, urn 2 (Pl. XII, 1–2). The problem of *Raupenfibeln* (fibulae with *"dem raupenförmigen Bügel"* – E. Blume 1912: 40) requires separate discussion.

These brooches with a crossbow construction and a full catch-plate were not distinguished by O. Almgren[12]. The question of their terminology has been lately outlined by M. Tuszyńska who also proposed their typology (M. Tuszyńska 1988). Her series I, variant 2 (the ornament covering both the foot and the bow) includes type Dollkeim/Kovrovo brooches (Eisliethen, grave 56; Alstenbakke/Saltuna) and an intermediate variant of type Dollkeim/Kovrovo (Lyublino, grave 25). The main criterion for defining the so-called *Raupenfibeln* is their special, caterpillar-like ornament on the bow. A further subdivision was based on the shape of the head, foot and the catch-plate (M. Tuszyńska 1988: Fig. 4). However, it may be a mistake to associate the brooches in question into a separate group as they are so heterogeneous. Some have a semicircular plate or a knob on the head. The foot may be triangular or rectangular, in some specimens it is quite narrow. Rather, it appears that there was a common style of ornamentation of the bow occurring around the Baltic Sea (M. Tuszyńska 1988: Fig. 1) applied in widely different types of crossbow brooches with a full catch-plate. Type Dollkeim/Kovrovo and its variant seems to be only one of them.

Returning to the Dollkeim/Kovrovo type and its decoration it should be pointed out that there are single specimens with stamp ornamentation, e.g. Kovrovo, grave 106; Warnikam, grave 72 (Pl. XII, 4–5). An exception appears to be relief ornament seen on the bow of a brooch from Lermontovo, grave 7 (Pl. XII, 6) and on the foot of

[11] The single finds from the Central Lithuanian Group and Samogitian Flat Cemeteries Group may be treated as exceptions.

[12] O. Almgren distinguished type VI, 171 with such decoration on the bow, but with a different construction. A crossbow brooch from Eisliethen is mentioned in one of his appendices as an exception among type 171 (O. Almgren 1923: 226 no 173).

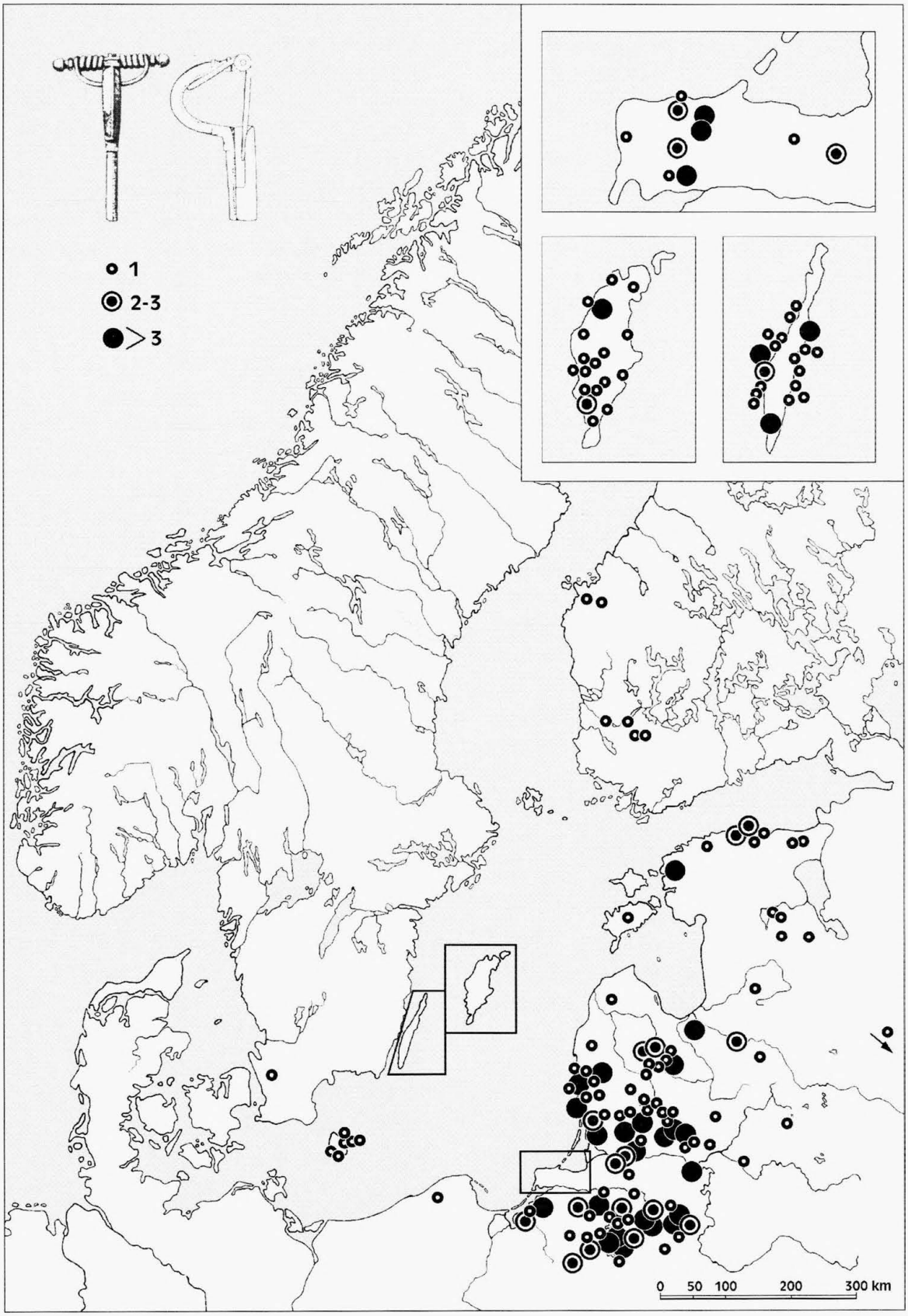

Fig. 7. Distribution of Dollkeim/Kovrovo brooches.

a fibula from Kosewo, grave 18. As was noted in the discussion of type Schönwarling/Skowarcz, such ornamentation may be related to the Scandinavian Nydam style[13].

Another example of the "exchange" of stylistic ideas may be seen. Two fibulae with a tapering foot (Pesochnoe, grave 15; Warnikam, grave 55A) may be regarded also as a result of interchange with Scandinavian workshops where such a tendency is observed among brooch types Schönwarling/Skowarcz and Dollkeim/Kovrovo[14]. Germanic influences may possibly be evidenced by the presence of silver items among the Dollkeim/Kovrovo Culture fibulae in question (Berezovka, grave 32; Zdory – Pl. XII, 8)[15]. Silver was used very rarely in the Balt environment.

It is also worth noting the presence of iron specimens of type Dollkeim/Kovrovo recorded on Balt territory. A number of iron brooches is known from the Sudovian Culture (Boćwinka, barrow X, grave 2A; Osinki, barrow III, graves 8, 12; Wołownia, barrow 3, grave 7). Other iron items of the type in question were found in the territory to the north and east of the Sudovian Culture namely, in the West Lithuanian Group (Ģeistauti, grave 2; Mazkatuži, grave 18; Rubokai, grave II), Central Lithuanian Group (Plinkaigalis, grave 76; Pašušvys) and East Lithuanian Barrows Culture (Taurapilis, barrow 1). This reflects the same tendency as in the case of iron fibulae type Schönwarling/Skowarcz namely, the continuation of a tradition taken over from the Przeworsk Culture of making iron ornaments (comp. footnote 9).

In Samland and its region medium-sized, slender fibulae some 7 cm long are most widespread (Pls. XI, 1, 4; XII, 1–2, 4–6). Apart from the slender specimens with a long foot there is also a number of fairly squat brooches in which the ratio of the length of the spring to that of the fibula itself becomes approximate[16]. One should not forget that the data on Samland finds and all material from the former East Prussia bases on drawings and descriptions, more often only descriptions[17] rather than on original artefacts. Consequently, the comparison of their size is restricted, although it is possible to notice the general tendency.

Among regions traditionally connected with Samland, especially the Bogaczewo Culture and the Gołdap area of Sudovian Culture yield brooches similar in design to those from the Dollkeim/Kovrovo Culture (Pls. XII, 7–8; XIII, 1). Other territories usually linked with the latter area namely, the West Lithuanian and Lower Nemunas Groups produced a significant concentration of fibulae in question (Fig. 7) featuring local patterns. They have become rather stocky with a length of the brooch and of the spring largely the same (Pl. XIV, 1–2). It is important to note the appearance of a new feature namely, a large trapeze-shaped metope on the head (Pl. XIV, 3) which appears to be the evidence of a further stylistic development of the type Dollkeim/Kovrovo towards the Lithuanian variant (see below). One specimen of this kind is known from the West Lithuanian Group (Lazdininkai, grave 57) and 7 items from the Lower Nemunas Group in which the metopes are stamp-ornamented (e.g. Greižėnai, graves VII, XV, XVII; Mezhdurechye; Vilkyškiai). Brooches from the western part of Lithuania feature a common pattern namely, groups of transverse lines or grooves. A single specimen from the Lower Nemunas Group cemetery at Vidgiriai had a relief decoration (Pl. XV, 1).

Fibulae from Tūbaušiai, grave 1, Lazdininkai, grave 17 and Ģeistauti, grave 17, all from the West Lithuanian Group feature a small cross-piece at the end of the foot (Pl. XVI, 3). The same characteristic is seen in a small number of brooches from the Sudovian Culture (Pl. XVII, 1, 3).

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[13] It is worth recalling that the typical Scandinavian relief ornament is unknown among Scandinavian brooches of type Dollkeim/Kovrovo.

[14] Comp. items from Hallbjens, Gotland and Rosenborg, Folkeslunda and Borgholms slott on Öland.

[15] There is also another silver item, a type Schönwarling/Skowarcz brooch from Warnikam, grave 65 (see above).

[16] See items from Prostornoe; Plauen; Podgórze; Löbertshof; Eisliethen, grave 141.

[17] An example of fibula from Kovrovo, grave 106 shows how carefully one should treat such descriptions. In this case it is possible to compare the description given by N. Åberg (1919: 163) with the picture of this brooch published by O. Tischler and H. Kemke (1902: 22, Pl. V, 21). According to N. Åberg it might be a slightly more slender fibula, with longer foot.

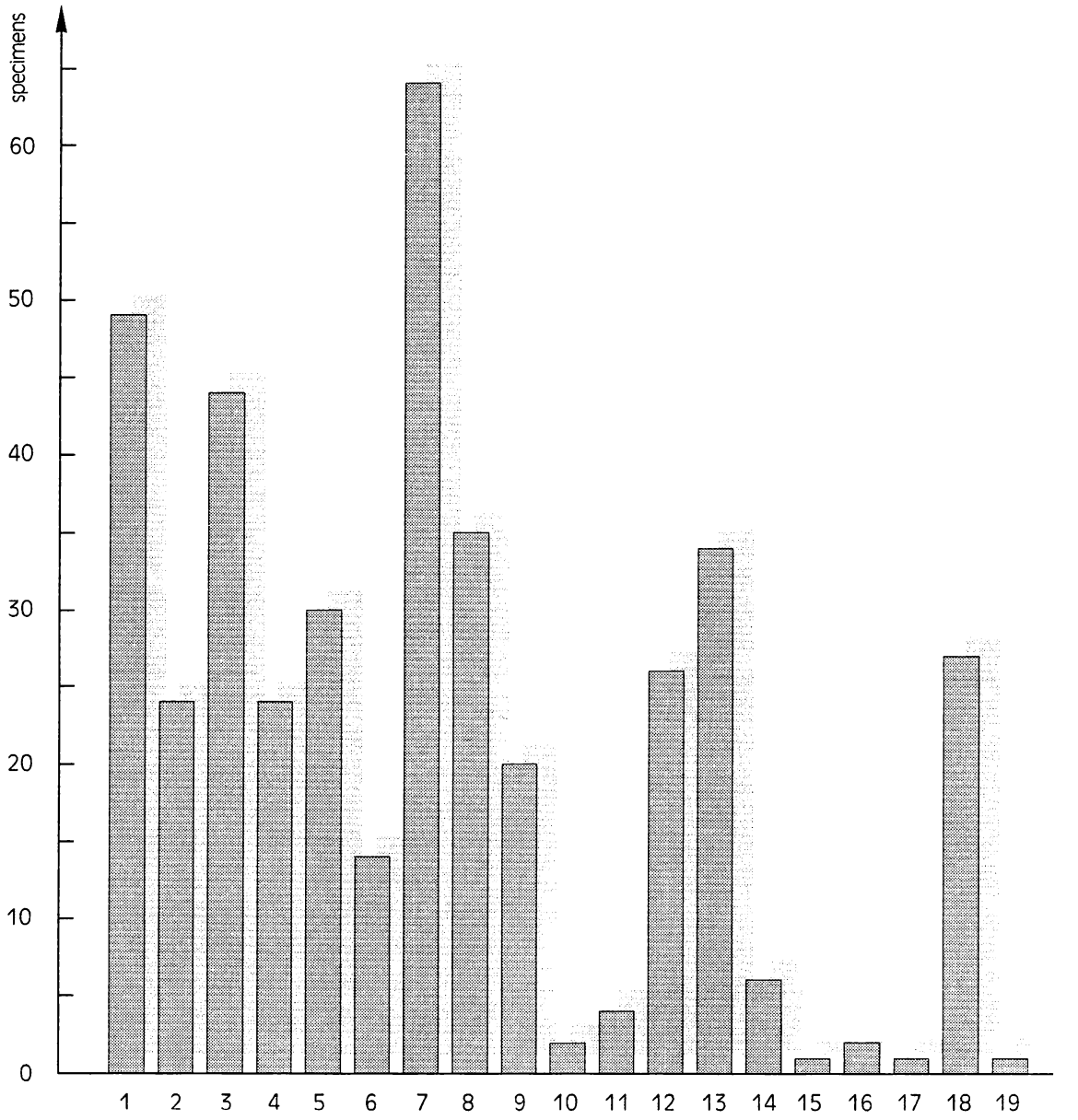

Fig. 8. Histogram for Dollkeim/Kovrovo brooches. 1 - Dollkeim/Kovrovo Culture; 2 - Bogaczewo Culture; 3 - West Lithuanian Group; 4 - Lower Nemunas Group; 5 - Sudovian Culture, Gołdap area; 6 - Sudovian Culture, Suwałki area; 7 - Central Lithuanian Group; 8 - Samogitian (Žemajtija) Flat Cemeteries Group; 9 - Semigallian Flat Cemeteries Group; 10 - East Lithuanian Barrows Culture; 11 - East Latvian Flat Cemeteries Group; 12 – Gotland; 13 - Öland; 14 - Bornholm; 15 - Scania; 16 - Wielbark Culture; 17 – Dębczyno Group; 18 – Tarand Culture; 19 - Kiev Culture.

This pattern reflects a stylistic development of crossbow brooches with a long foot and full catch-plate towards typical Balt specimens with a massive crosspiece at the end of the foot, so-called *Schlußkreuzfibeln* (N. Åberg 1919: 120–124, Figs. 174–178). This demonstrates the power of the tradition of using crossbow fibulae in the Balt environment, which was to be the case of the Lithuanian variant. Such a tendency may be confirmed also by the phenomenon of the degeneration of the type Dollkeim/Kovrovo illustrated by a massive cast brooch from Kairėneliai, grave 29

(Samogitian Flat Cemeteries Group) having an imitation of the crossbow construction and transverse grooves (J. Stankus 1984: 73–74, Fig. 9: 2).

As has been noted, a particularly large concentration of type Dollkeim/Kovrovo brooches occurs in the Central Lithuanian Group (see histogram Fig. 8). Most of them are fairly large, *ca* 8–10 cm in length. Beside slender, longer than wider, specimens some specimens are almost of equal length and width (Pl. XVIII, 4). The spring is usually very wide, with 16–18 even as many as 28 coils (Plinkaigalis, grave 356) or 30 coils (Pašušvys). Various knobs decorate the ends of the axis: hemispherical, profiled and cylindrical knobs or both types on one and the same specimen (Plinkaigalis, grave 80). A recurring local pattern is a wide faceted chord, often decorated by stamping (Pl. XIX, 1).

A new local feature in the Central Lithuanian Group are single or double scored rings placed at the ends of the axis, e.g. Graužiai, grave 1; Plinkaigalis, grave 356; loose find (Pl. XIX, 2). The same feature may be seen among Dollkeim/Kovrovo brooches from the Suwałki area of Sudovian Culture, e.g. Osinki, barrow II, grave 5; Suchodoły; Bilwinowo, barrow 8, grave 4 (Pl. XVII, 3, 8). Such similarity of design confirms the existence of connections between these two regions, also observed in Late Roman Period. The distribution of wristband bracelets could be another evidences (LAA 1978: 91, Map 53; W. Nowakowski 1991: 54–59, Fig. 8). The presence of scored rings on the axis ends of a brooch from the Samogitian Flat Cemeteries Group (Pagrybis, grave 200B) may be ascribed to Central Lithuanian influence. A single find from the Bogaczewo Culture (Kosewo, grave 20) seems to be the result of contacts with the Sudovian Culture.

Last, but not least is the local pattern seen in the Central Lithuanian Group: a group of ribs reminiscent of "a cockscomb" placed on the top of the bow (Pl. XX, 2). Specimens with this pattern are recorded at the Plinkaigalis cemetery (graves 80, 353, 355) and Pašušvys, a cemetery situated on the other bank of the Šušve River. Of this small concentration a brooch was discovered at Rubokai, grave 44 (West Lithuanian Group) and Pagrybis, grave 38 (Samogitian Flat Cemeteries Group). The "cockscomb" pattern is also seen on some crossbow brooches with an animal head at the end of the foot (see Sensburg/Mrągowo brooches, Rubokai variant – Chapter 2.4.).

Outside Balt territory the type Dollkeim/Kovrovo occurs in concentration in the Finnish lands, in northern and south-eastern Estonia and south-western Finland (Fig. 7). In contrast to the unique find of a type Schönwarling/Skowarcz fibula, apparently a Balt import (Kohtla Järve), type Dollkeim/Kovrovo brooches were produced locally. Both interregional features are in evidence, as for example, the proportions and stamp ornamentation (Pl. XXI, 1–2, 6–7) as well as local features, such as the lack of emphasis placed on the point of transition of the bow into the foot (e.g. Malaks? – Pl. XXI, 3). Some specimens are somewhat different in construction from fibula of this type from the other areas. The pin is not connected with the spring being an entirely separate element, one end of which is wound around the small spring at the head of the brooch.

A fully unique local derivative is represented by another brooch from Malaks? (A. Hackman 1905: 76–78, Pl. 3:2). It has six pairs of convex ribs, in imitation of rings of scored wire. There is a polygonal knob on the head, characteristic for different Scandinavian brooches, e.g. cruciform and some Gotlandic fibulae (B. Nerman 1935: Figs. 1–26; J. Reichstein 1975).

Outside the Baltic zone, a single isolated specimen of Dollkeim/Kovrovo brooches was recorded at an undetermined site in the Dneper basin (M. Kazanski 2000). The brooch is similar in design and proportions to items from Samland or its surrounding area and may be treated as a direct import from that region.

Dollkeim/Kovrovo brooches in the Wielbark Culture and Dębczyno Group

There are only a few fibulae type Dollkeim/Kovrovo on record west of the Balt lands (Fig. 7) among them, two specimens from the Frombork hoard discussed earlier (Pl. VII, 6–7). A completely isolated find is a brooch from Witkowo,

Dębczyno Group. This specimen may be regarded as either a Balt or Scandinavian import while all the other brooches undoubtedly originated from Samland. Scandinavian provenance of the Witkowo brooch appears even more probable in view of the close connections linking the Dębczyno Group with Scandinavia (H. Machajewski 1992b).

Dollkeim/Kovrovo brooches on the Baltic islands

A distinct concentration of the discussed fibula type is visible in the Baltic islands, especially Öland and Gotland (Fig. 7). Here the Dollkeim/Kovrovo specimens substantially outnumber the type Schönwarling/Skowarcz. A few finds are listed on Bornholm. A single, dispersed specimen was found in Scania. Dollkeim/Kovrovo brooches are much more varied in the Baltic islands than their counterparts from the southern shore of the Baltic. While their internal differentiation is considerable it is possible to point out some regularities.

The fibula assortment from Öland is characterised by their small dimensions. About 30% of the specimens are no more than *ca* 5 cm in length, as for example, items from Bläsinge, Gråborg or Bostorp (Pl. XXIII, 1–2). A similar tendency may be observed with regard to Schönwarling/Skowarcz fibulae from Öland (see above). A few brooches are massive, with different proportions: their spring is nearly as long as their length (Holmetorp, Dörby – Pl. XXIII, 4–5). Massive knobs on the end of the axis are typically hemispherical; an exception appears to be an item from Borgholms slott with cylindrical knobs a feature seldom observed in Schönwarling/Skowarcz fibulae from Samland and Öland.

Öland has produced single specimens with a faceted surface of the bow or the foot, e.g. Övre Ålebäck, Kåtorp (Pl. XXIII, 3) a pattern observed among type Schönwarling/Skowarcz specimens only in the Baltic islands. But the most popular ornament becomes that of groups of transverse grooves (Pl. XXIII, 1, 4–5). A few finds are decorated with a stamped ornament sometimes covering the entire surface, e.g. Bostorp. A brooch from Bostorp apart from stamping featured an engraved decoration on the catch-plate (Pl. XXIII, 2). The same pattern is seen on an item from an unknown site on Gotland. It appears to be a very rare feature, known also from the Balt lands, the Sudovian Culture (Suchodoły). But there is no obvious evidence of direct relationship between these territories.

Another unusual item from Öland is represented by a brooch from Kaplansborklet having a different construction feature, namely a double chord (Pl. XXIV, 1). Two other items with a double chord are recorded at Eketorp. Gotland also produced such fibulae namely, finds from Grötlingbo parish and Mellings (Pl. XXIV, 3). This construction is also known among Bornholm brooches (see below). Crossbow fibulae with a long narrow foot and a double chord are recorded only in the Baltic islands but this seems to be an evidence of stimuli reaching from Balt territory where crossbow fibulae (*Armbrustfibeln mit umgeschlagenem Fuß*) have such construction (O. Tischler & H. Kemke 1902: Pl. III, 10, 12, 14). This would be one more example of adaptation of foreign ideas in a new way untypical for the original design.

Looking at local, Gotland features among Dollkeim/Kovrovo brooches one observes the popularity of the stamp decoration. Almost 40% of these specimens featured this ornament (Pl. XXIV, 5). The presence of large specimens, *ca* 8–10 cm in length may be regarded as another typically Gotland regional tendency (Pls. XXV, 1; XXVI, 1). These large and heavy items are usually quite slender, with a relatively long foot as compared to the size of the spring. Unlike on Öland Gotland did not produce any smaller brooches *ca* 5 cm in length.

Both small and large fibulae are known from Bornholm (Pl. XXIV, 2, 4). Since only 6 finds are listed in the catalogue it would be difficult to identify any local features. An interesting quite striking specimen occurred at Alstenbakke/Saltuna, decorated in the *"Raupenfibeln"* style (Pl. XXIV, 2).

The Lithuanian variant

As was noted earlier the Lithuanian variant (see Appendix E) features a large trapeze-shaped metope on the head as well as a large crosspiece between the bow and the foot (Pls. XXVIII; XXIX). Such brooches evolved gradually from certain type Dollkeim/Kovrovo specimens having a small trapeze-shaped metope.

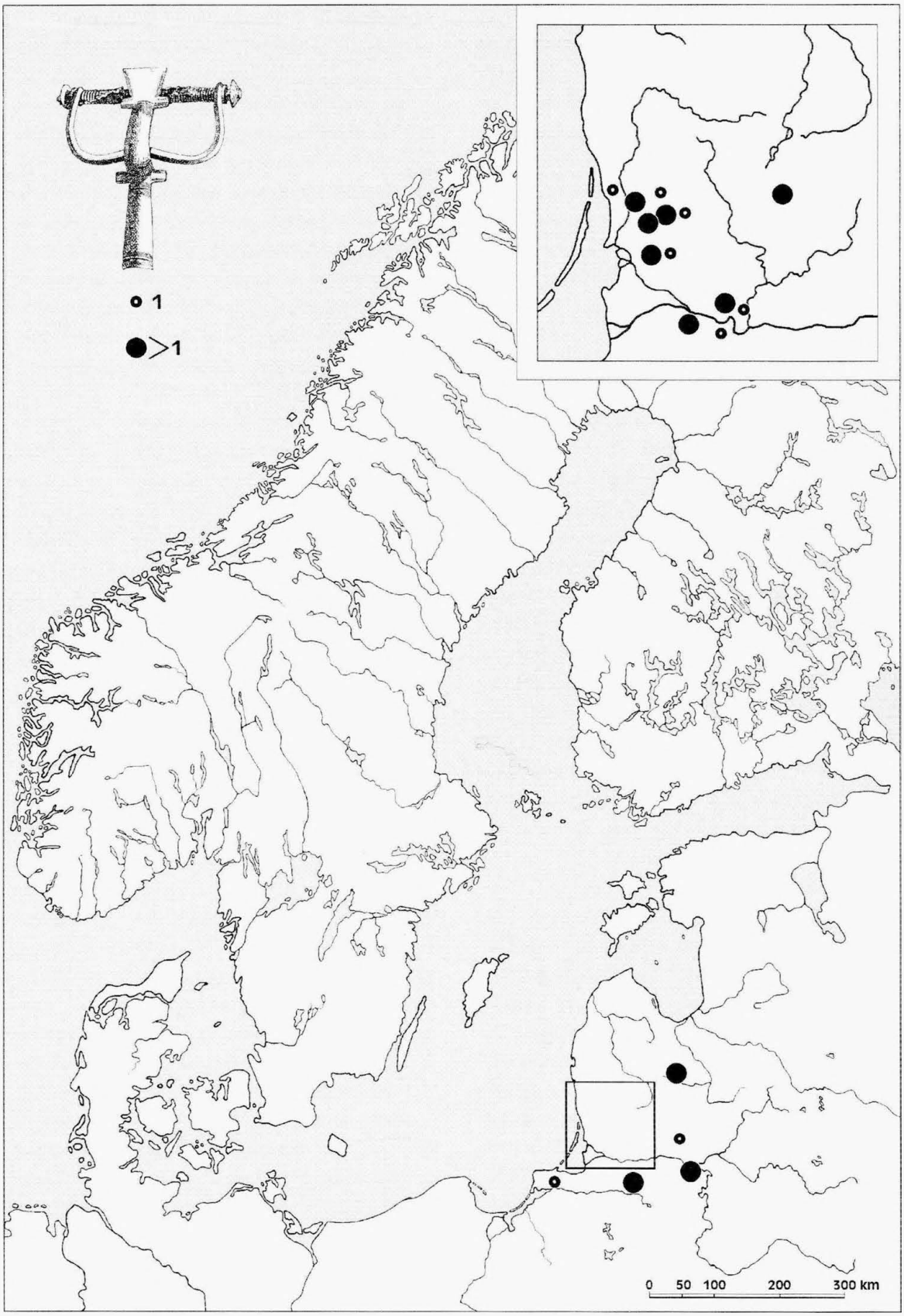

Fig. 9. Distribution of Dollkeim/Kovrovo brooches, Lithuanian variant.

Such a development is confirmed by an item from the Samogitian Flat Cemeteries Group, found at Pagrybis, grave 134 (Pl. XXVIII, 1, 3–4). Apart from the trapeze-shaped metope on the head there is also a visible rib between the bow and the foot, a "prototype" of the crosspiece in the Lithuanian variant.

Brooches of this variant are also distinguished by their proportions (Pl. XXVIII, 5). Their width is the same or larger than their length e.g., Weszeiten, Pagrybis, graves 85, 184 (with 24–30 coils of the spring). The knobs on the end of the axis vary in design. Some are hemispherical, others profiled (Pagrybis, graves 85, 184), conical (Vilkų Kampas, grave 5) still others feature double-scored rings (Pagrybis, grave 38). The most common ornament appears to be delicate or deep transverse grooves (e.g. Jauneikiai, grave 393; Weszeiten; Jurgaičiai, grave 7). Apparently exceptional is a stamped decoration on the bow and the chord of a loose find from Pagrybis and the "cockscomb" of a brooch from grave 38 in Pagrybis. The item from Vilkų Kampas, grave 5 mentioned earlier has an engraved decoration both on the metope and the crosspiece between the bow and the foot (Pl. XXVIII, 2).

The Lithuanian variant occurs almost exclusively in Lithuania with a largest concentration in the West Lithuanian Group (Fig. 9). A much smaller concentration may be observed in the Lower Nemunas Group. A small number of finds is recorded in Samogitian Flat Cemeteries Group, the Central Lithuanian Group and Semigallian Flat Cemeteries Group. There is also a single isolated find known from the Dollkeim/Kovrovo Culture (Solechnoe), an import from Lithuania.

It is interesting to compare the main concentrations of the Lithuanian variant with territories featuring its prototype. The latter is recorded especially in the Lower Nemunas and Central Lithuanian Groups, but the Lithuanian variant concentrates in the western part of Lithuania. The form itself emerged in the Lower Nemunas Group wherefrom it spread out to the West Lithuanian Group where it became particularly popular despite the rarity of the prototype brooches. The fashion for the variant in question did not extend outside Lithuania. An item from Solechnoe (Dollkeim/Kovrovo Culture) is the only exception.

The Lithuanian variant evidently continued in use for quite a long time undergoing further stylistic development. The crosspiece between the bow and the foot became much bigger and elongated. Another long crosspiece appeared at the end of the foot. The metope on the head grew larger and consists of two long crosspieces. The stylistic evolution of the Lithuanian variant gave rise to a new type of crossbow brooches, namely the rung fibulae (*Armbrustsprossenfibeln*). They became one of typical Balt ornaments dated to the Late Migration Period (J. Okulicz 1973: 482–483; W. Nowakowski 1996: 54, Table I)[18]. Their spatial distribution is much bigger than that of the Lithuanian variant. Apart from the Lower Nemunas and West Lithuanian Groups rung brooches occur in the Dollkeim/Kovrovo Culture, Elbląg and Olsztyn (*Masurgermanische Kultur*) Groups, Samogitian Flat Cemeteries Group, Central Lithuanian Group and East Lithuanian Barrows Culture (N. Åberg 1919: 125–131, 139–142, E. Šturms 1950: Fig. 1; Map VIII; LAA 1978: 45–47, Map 32).

Chronology

Apart the author's efforts (A. Bitner-Wróblewska 1991b; 1992a), the type Dollkeim/Kovrovo was not recognised earlier in literature and no separate discussion on its chronological context was made.

The chronology of the type in question may be discussed with that of the Schönwarling/Skowarcz since former represents a stylistic development of the latter. There are several assemblages, all recorded in the Dollkeim/Kovrovo Culture containing both the Schönwarling/Skowarcz and Dollkeim/Kovrovo brooches in one grave (e.g. Kovrovo, graves 106, 183; Warnikam, grave 41). Such a combination of fibulae also occurred in the Frombork hoard making it possible to apply the absolute dating of the latter also with type Dollkeim/Kovrovo brooches (see discussion above).

[18] The degeneration of the rung brooches led to the cast fibulae with rungs occurring in Lithuania and Latvia (N. Åberg 1919: 141–142, Figs. 196–197).

Fibulae of the type in question known from the Dollkeim/Kovrovo Culture are generally assigned to its phase 5. which corresponds to the interregional phase D (see W. Nowakowski 1996). However, a sizeable group of finds were found in a apparently slightly later context in combination with slender pottery (*flaschenförmige Beigefässe*) or twisted necklaces (e.g. Kovrovo, graves 96, 98; Pesochnoe, grave 1; Berezovka, grave 32).

The same chronological tendency may be observed among Lithuanian and Latvian specimens of the type Dollkeim/Kovrovo. Besides grave complexes connected to the Early Migration Period[19] (Pls. XIX, 3–11; XX) numerous assemblages may be linked to the decline of this phase and to the one following it. Some assemblages contain massive triangular section bracelets as Maudžiorai, grave 115 or bracelets with substantially thickened terminals, e.g. Šarkai, grave 10; Aukštkiemiai, graves 75, 254; Pļavniekkalns, grave XXIV. A representative example appears to be the grave 132 from Aukštkiemiai (Pl. XXX), West Lithuanian Group containing a bracelet with thickened terminals, a late star-footed brooch type II and an early variant of a buckle with a crosspiece at the spike base (*Kreuzdornschnalle*). Such buckles are characteristic for the Late Migration Period in the Balt environment (comp. J. Heydeck 1995). One of the latest assemblages with type Dollkeim/Kovrovo fibulae seem to be graves 612 and 725 from Marvelė, Central Lithuanian Group, which produced the developed form of *Kreuzdornschnalle* and a buckle with a kidney-shaped frame.

Finnish specimens of Dollkeim/Kovrovo brooches are difficult to date originating as they do from tarand type cemeteries which lack distinct assemblages. All that is typically known in their case is that a given fibula was found at the edge of an earthen wall among materials from the 5th – 6th c. (e.g., the specimen from Kohtla Järve I – Pl. XXI, 1). Dollkeim/Kovrovo brooches may be viewed as one of the signs of the onset of the Migration Period in Finnish lands. Exceptions include a rich assemblage from the cremation grave at Kirimäe (Pls. XXI, 4–7; XXII), dated to some time after the mid 5th c. Dollkeim/Kovrovo brooches were accompanied by spade-footed fibulae type VII with chip-carving ornamentation, bracelets with thickened terminals, pins with a triangular head, a buckle with a stylised animal head at the end of the spike as well as numerous items of weaponry including hemispherical shield-bosses and slim spearheads.

Scandinavian Dollkeim/Kovrovo specimens are usually dated to the later stage of the Migration Period, namely Nerman's Period VI:2 (B. Nerman 1935: 68–70). At Bjärs, grave 16 and Havor, grave 183, both on Gotland, brooches of this type co-occurred with developed openwork strap ends (Pl. XXVI, 2, 7). A grave at Barshaldershed produced similar specimens in company with a C-bracteate, a type Snartemo glass beaker, a buckle with a thickened frame and rectangular ferrule as well as a fragment of narrow tongue-shaped strap end (Pl. XXV). The latter is characteristic exclusively for Period VI:2.

The weapon grave at Salands, on Gotland (Pl. XXVII) containing a brooch of the discussed type, also yielded a comb of a type found throughout the Migration Period, a Snartemo scabbard chape (see W. Menghin 1974: 438, Fig. 3; 1983: 123, Fig. 73) and a clasp button form B1, decorated in the Nydam style. The buttons could be assigned to Bakka's *Stufe II* (J. Hines 1993: 16) but the Salands find seems to be in slightly later-looking context. Scabbards type Snartemo are dated to the 2nd half of the 5th and beginning of the 6th c.

It is possible however that the earliest fibulae of type Dollkeim/Kovrovo appeared in the Baltic islands during the preceding stage of the Migration Period. An intermediate variant of the type in question found in the Hallbjens grave was associated with a brooch with a triangular foot and a polygonal knob on the head (Pl. X). Such fibulae may be assigned also to Period VI:1 (B. Nerman 1935: 2–3).

To close the discussion of chronology of the type Dollkeim/Kovrovo it is worth noting that while the chronological position of types Schönwarling/Skowarcz and Dollkeim/Kovrovo

[19] Comp. Plinkaigalis, graves 52, 79, 80, 332, where brooches type Dollkeim/Kovrovo co-occur with spurs group VIII/IX, buckles with a metope, oval buckles.

partially overlaps, the latter clearly persists in use longer. This applies particularly to the Balt finds. As far as brooches from Öland, Gotland and Bornholm are concerned, it is more difficult to draw a line between the chronologies of the fibula types in question. They appear to be contemporary and fit within Period VI:2 although the earlier specimens might have appeared slightly earlier.

Bornholm brooches and variants

Introduction

Only a handful of the Schönwarling/Skowarcz and Dollkeim/Kovrovo brooches (4 and 6 respectively) are known from Bornholm, where a new, local type emerged, named the "type Bornholm" by the author (Appendix F). It became one of the most popular category of ornaments on that island (Fig. 10). Including the partially preserved specimens of an unknown variant 78 type Bornholm fibulae are recorded on the island. The number of finds has increased in particular after the introduction of metal detectors in surveying settlements. Previously less than 20 type Bornholm specimens were known almost without exception originating from graves. The vast increase in the number of finds from the settlements has not produced any new variants of type Bornholm[20] but altered the scale and proportions of this category of ornaments. They might even be regarded as an indicator of Bornholm costume during the Migration Period.

The typological source of the type Bornholm is the Schönwarling/Skowarcz, as is confirmed by parallels in the construction and morphological features, namely the crossbow construction, short catch-plate, long narrow foot and wide spring. A new addition is the elongation or knob on the head projecting beyond the spring (Pls. XXXI, 1, 8; XXXII, 1, 3–4, 7–8). If the spring with the knobs on the end of the axis is preserved these feature hemispherical, profiled knobs.

The stylistic inspiration for the new additional feature of Bornholm brooches may have been provided by the so-called *Bügelknopffibeln* (E. Meyer 1960). These brooches with knobs are typical particularly for the Elbe basin, with a number of dispersed specimens known from Pomerania, Scandinavia, including Bornholm, and the Balt lands. Another, perhaps even more likely influence may have been that of the *ligearmede fibler* (equal-armed brooches) from Sjælland[21]. These feature an oblong knob decorated with deep transverse grooves, projecting beyond a short spring. There is a triangular plate on the foot. They are datable to the latest phase of the Late Roman Period (U. Lund Hansen 1971; 1995: 216, 240)[22].

Type Bornholm, distinguished by the author, previously had a different name. E. Vedel called them type F3, a group of brooches among the crossbow ones (E. Vedel 1886: 161, Fig. 321). It is worth stressing that he joined them with crossbow fibulae in contrast to some scholars after him (see coming remarks on L. Jørgensen's terminology). According to K. Høilund Nielsen the ornaments in question belong to type H which includes the so-called simple crossbow brooches (K. Høilund Nielsen 1987: 61, Fig. 10). This means that specimens with a long, narrow foot and a knob on the head are lumped together with all other crossbow fibulae, as types Schönwarling/Skowarcz and Dollkeim/Kovrovo, brooches with an animal head on the foot and others. This seems to be a gross oversimplification of terminology. L. Jørgensen has divided the author's type Bornholm into two groups referring to items with an oblong knob, decorated with transverse grooves as *"F25 = ligearmede fibler"* to those having a shorter knob as *"F27 = kraftige armbrøstfibler med lang fod"*

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[20] There are no differences in finds from graves and settlements. Brooches from graves have their counterparts from settlements and vice versa. Comp. specimens from: Melsted-Sandhuset, grave 2 and Sorte Muld (BMR 1191 x 298); Melsted, grave 8 and Bakkegård (BMR 1171 x 20); Levka, grave 2 (BMR 1119 x 57) and Sorte Muld (BMR 1191 x Y12-K).

[21] The brooches in question were found in following graves: Lundby, Nyrup, Storskoven (H. Norling-Christensen 1957: 60, Figs. 18, 25-27; U. Lund Hansen 1971: DK 42), Stålmosegård-Vindinge, grave CL (unpublished materials in National Museum, Copenhagen).

[22] This chronology may require new discussion especially concerning its basic grave assemblage, the Nyrup one (see coming Chapter 3.).

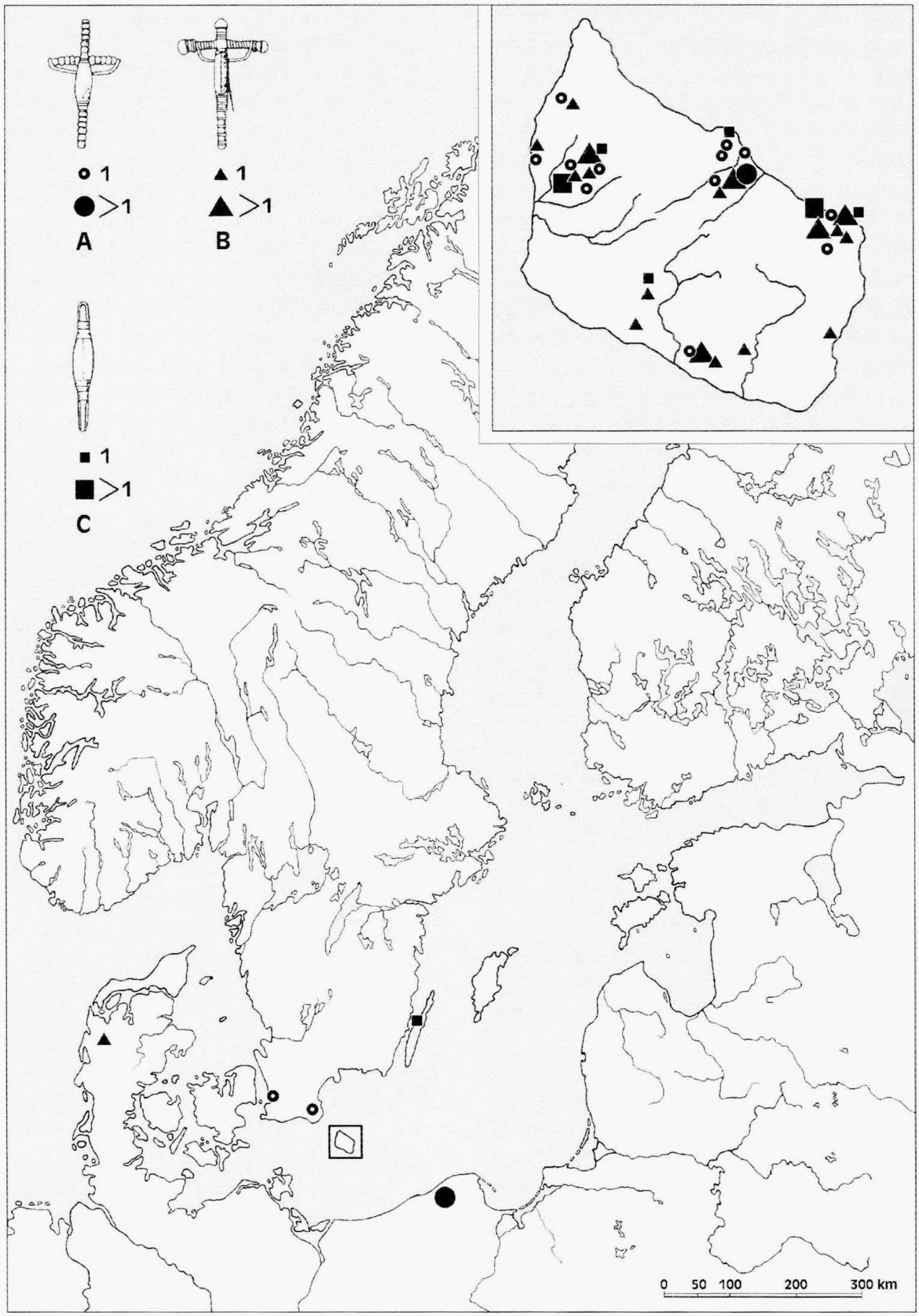

Fig. 10. Distribution of crossbow brooches type Bornholm. A – Melsted variant; B – Levka variant; C – Sorte Muld variant. Specimens of undetermined variant are not included.

(L. Jørgensen 1989: 183, diagram 2). The latter he described as being similar to type Schönwarling.

Such a division of the type Bornholm does not seem justified. The construction and morphological features of Jørgensen's two groups are the same or very similar. In contrast, equal-armed brooches have a very short foot of the same length as that of the elongation on the head and the same as the length of the catch-plate. Their spring is much shorter than the one in type Bornholm (see E. Vedel 1886: Figs. 149, 321; L. Jørgensen 1990: Fig. 17 F1b, H; Pl. 7:7).

It appears much more useful to treat all crossbow fibulae with a knob on the head, short catch-plate and a long foot as one group. But the fact that type Bornholm is not homogeneous encourages a further classification. The shape of the knob on the head, as its distinguishing feature appears to be the most obvious criterion. It is interesting to notice that the distribution of all variants on the island is uniform. There are no local workshops producing particular variants.

Melsted variant

Melsted variant features an elongation decorated with transverse, often very deep grooves (Pls. XXXI, 1; XXXII, 1, 3–4). This ornament is frequently seen on the foot, more rarely on the bow of the brooch. Specimens of Melsted variant vary in terms of the size of the elongation.

A brooch from Møllebakken, grave 1 (Pl. XXXII, 1) has a double chord, an untypical construction feature the origin of which was discussed in the previous section in association with type Dollkeim/Kovrovo brooches.

As has already been noted above, Bornholm brooches were recorded almost exclusively on Bornholm with only a few finds known outside the island. Most of the latter represent the Melsted variant. Two such brooches were found in Scania, at Gårdlösa, grave 72 (Pl. XXXII, 4–6, 9) and in the Uppåkra settlement. Two others fibulae are recorded in the Dębczyno Group, at Głuszyno, grave I (Pl. XXXIII, 1–2). The third brooch from this grave, featuring a broken knob on the head, probably also represents the Melsted variant.

Last, but not least, a specimen of the Melsted variant is known from a grave in Åk, western Norway. A brooch inspired by the variant in question was found in the Illerup votive sacrifice (pers. comm. J. Ilkjær, Århus, whom I would like to thank very much). Apart from the latter, all these finds may be treated as imports from Bornholm, illustrating the direction of the island's links.

It is interesting to observe the stylistic tendency in further development of the Melsted variant. Brooches with an elongation decorated with deep transverse grooves were evolving towards specimens with a short knob and foot finally assuming the form of equal-armed brooches characteristic for Late Germanic Iron Age (L. Jørgensen 1990: 24, Fig. 17).

Levka variant

Levka variant is characterised by the presence of a profiled knob on the head (Pl. XXXIV, 8). The foot is usually decorated with deep transverse grooves. In contrast to other variants of type Bornholm, Levka variant seems to be quite homogeneous. The idiosyncratic specimen from the settlement at Sorte Muld appears to be an exception. It features a rectangular metope on the top of the bow decorated with engraving along the edges (Pl. XXXI, 8). This pattern is unknown among brooches type Bornholm. Metopes on the bow are typical for Balt fibulae with a star-like foot (A. Bitner-Wróblewska 1991a). Consequently, that region should be regarded as a source of inspiration[23].

The Levka variant appears to be the most common; 34 specimens were recorded on Bornholm. The only specimen known from outside the island is a brooch from Bondesgård in west Jutland. Its long foot is flush with the catch-plate, a pattern untypical for all variants of type Bornholm.

Sorte Muld variant

The Sorte Muld variant features a faceted knob on the head (Pl. XXII, 7–8). The variation between specimens of this variant occurs in the size of the knob. A number of finds of the variant

[23] The same situation is true of the Schönwarling/Skowarcz brooch from Hablingbo on Gotland (see above in this Chapter).

in question, apart from the faceted knob, also feature faceted decoration on the foot, e.g. items from Nygård, Melsted-Sandhuset, grave 2; Dalshøj (Pl. XXXII, 7).

A unique specimen of Sorte Muld variant is known outside Bornholm, namely a fibula from Mossberga bog on Öland. It might be a local example of Sorte Muld variant. Its long foot is narrower on the end, a feature known among some Schönwarling/Skowarcz and Dollkeim/Kovrovo brooches occurring in the Baltic islands.

Chronology

Type Bornholm brooches were included by K. Høilund Nielsen into her highly heterogeneous type H and placed in phase 1A (K. Høilund Nielsen 1987: 61, 69, 71, Fig. 10). This phase is synchronic with the beginning of the Late Germanic Iron Age and dated to the period after 530 AD. Such late chronology has also been suggested in literature basing on finds of Melsted variant from Dębczyno Group (H. Machajewski 1992b: 75–76; 1995: 207–208). However, recently reservations have been raised by L. Jørgensen (1990: 23–27), who raised objection regarding the group of finds used by K. Høilund Nielsen in her phase 1A as originating from mixed graves. The disputed assemblages contained specimens characteristic for the Late as well as the Early Germanic Iron Age. The case of Møllebakken, grave 2 seems to be the best example. Apart from the crossbow brooch Melsted variant it contained a beaked fibula as well as a square-headed gilt specimen. The beaked fibula, characteristic for the Late Germanic Iron Age, had been interpreted earlier as an isolated find (see M. Ørsnes 1966: 247). The consequence of treating Møllebakken, grave 2 as a close assemblage was the late chronological position of Bornholm brooches.

The latest chronological system for Late Roman Period and Early Germanic Iron Age materials on Bornholm put forward by L. Jørgensen places the fibulae in question in his phases 7. and 8., corresponding to the Early Germanic Iron Age (L. Jørgensen 1989: 179–181, diagrams 1–2). The Melsted variant with a longer elongation distinguished by the author (Jørgensen's type F25) was placed in his phase 7. but it continued in use into the next phase. Specimens of the Melsted variant with a shorter elongation as well as of the Levka variant (both of L. Jørgensen's type F27) were allocated by L. Jørgensen to his phase 8., i.e., the later stage of Early Germanic Iron Age. Such a chronological division of the Melsted variant according to the length of the elongation appears incorrect. Assemblages are known containing specimens of both types (e.g. Møllebakken, grave 1; Levka, grave 2) whereas no specimens with a longer elongation have been found in a clearly earlier chronological context. Grave 8 at Melsted containing relief brooches may not be treated as a confirmation of L. Jørgensen's assumption. None of assemblages assigned by him to phase 7. produced items of the Melsted variant with a longer elongation.

As far as Bornholm brooches are concerned it is impossible to draw a line between chronologies of the variants. They appear to be contemporaneous and all fit within Early Germanic Iron Age. Their chronology may be combined with that of the Schönwarling/Skowarcz fibulae since type Bornholm was a local variation of the latter. Both types co-occurred in the already discussed grave 11 at Kobbeå (Pl. VIII, 2, 5).

Crossbow brooches with a long narrow foot. Conclusions

Crossbow brooches with a long, narrow foot became one of the most popular ornament in the eastern Baltic basin, including the Baltic islands. Geographical distribution of the typologically earliest Schönwarling/Skowarcz fibulae indicate the Dollkeim/Kovrovo Culture area as the principal concentration of these artefacts (Fig. 3). The diagram of their number in different territories (Fig. 4) shows the greatest dominance of the Dollkeim/Kovrovo Culture with a main centre in Samland, where the Schönwarling/Skowarcz brooches probably may have originated as has been already suggested in literature (K. Godłowski 1980: 71; M. Kazanski 1991: 5). Nowadays this hypothesis has received a new confirmation.

The demonstrably earlier chronological position of brooches from Samland suggests that the stylistic stimulus had originated from this area spreading rapidly across the eastern Baltic zone reaching also the islands of Öland, Gotland and Bornholm.

After collecting all specimens of the type in question it is possible to consider the scale and proportions of the phenomenon which makes it possible to review a number of incorrect hypothesis, as the one put forward by W. Nowakowski. He considered the Schönwarling/Skowarcz fibulae to have originated in the area of the Lower Vistula, in the Wielbark Culture (W. Nowakowski 1996: 105) where the rare finds of brooches in question are Balt imports.

As noted above, Schönwarling/Skowarcz fibulae occurs in concentrations primarily in the Dollkeim/Kovrovo Culture. Much smaller concentrations have been recorded in the Bogaczewo and Sudovian Cultures (Gołdap area) as well as on Öland and Gotland (Fig. 3). A small number of finds is listed in the Wielbark Culture and West Lithuanian Group. Finally, single scattered specimens are known from outside the area mentioned. In contrast, spatial distribution of Dollkeim/ Kovrovo brooches shows other areas of concentration (Fig. 7), i.e. Central and West Lithuanian Groups. The Dollkeim/Kovrovo Culture as well as Öland and Gotland produced much smaller concentrations than the Central and West Lithuanian Groups. The number of finds of Dollkeim/ Kovrovo fibulae visibly increased in Lithuania and Latvia as compared to the distribution of the Schönwarling/Skowarcz brooches. No specimens of the latter type are known from the Samogitian Flat Cemeteries Group which features a remarkable concentration of type Dollkeim/Kovrovo. This may be a good illustration of its growing popularity. Dollkeim/Kovrovo fibulae expanded reaching new areas of the Balt territory. It also appeared in the territory of Tarand Culture, where except for one specimen Schönwarling/Skowarcz brooches are not in evidence.

The stylistic analysis made by the author in connection with a general classification of long-footed crossbow brooches reveals the transmission of the design around the Baltic Sea as well as the interregional and local features of these ornaments. Worthy of note is the comparatively greater uniformity of type Schönwarling/Skowarcz and a much greater homogeneity of both types in the Dollkeim/Kovrovo Culture than anywhere else. The Baltic islands, GOB area traditionally inspired by various influences, produced much more heterogeneous brooches comparing to specimens from the other side of the Baltic.

Summarising the stylistic analysis, it is possible to notice some local, regional features besides close similarities among fibulae types in question. There is a tendency to reduce the size of the Schönwarling/Skowarcz specimens in the Baltic islands. Such a tendency is also observed on Öland in Dollkeim/Kovrovo brooches. In contrast, fibulae of this type found on Gotland are big and heavy although quite slender, with a relatively long foot as compared to the size of the spring. The number of stamp-decorated brooches on Gotland strongly suggests that this pattern is especially characteristic for that island. The faceted surface of the bow or the foot is typical exclusively for the GOB area.

An analysis of the fibulae occurring in the Balt lands also reveals a number of local features. The West Lithuanian and Lower Nemunas Groups produced rather squat, massive specimens with a tendency of the same length of the brooch and the spring. The presence of iron specimens of brooches in question could be regarded as another Balt feature. The scored rings as knobs are exclusively recorded in the Suwałki area of Sudovian Culture and in the Central Lithuanian Group. An interesting local feature of a narrow range is the "cockscomb" on the top of the bow found in the Central Lithuanian Group. A single specimen with such an ornament is known from the West Lithuanian Group. This pattern is also found among crossbow brooches with an animal head on the foot (see Chapter 2.4.).

The further development of crossbow brooches with a long and narrow foot gave rise to local variations such as the Lithuanian variant of type Dollkeim/Kovrovo, almost exclusively characteristic for western and central Lithuania, or type Bornholm produced on this island.

On the periphery of the concentration centres the development of Schönwarling/Skowarcz fibulae led to a far-reaching transformation of the original pattern such as brooches with a flat foot from Suchodoły in Suwałki region, Roes, Grötlingbo parish on Gotland and Sandby on Öland. Their development would appear to be the results of separate application, but it is important to note the same direction of stylistic changes in territories situated so far from each other.

It is worth noting that the variety of crossbow fibulae with a long foot registered in the Baltic islands did not lead towards any new type of brooch. Quite an opposite tendency appears in Balt lands where further development of crossbow fibulae in question was crowned by the emergence of brooches with a crosspiece at the end of the foot *(Schlußkreuzfibeln)* as well as brooches with rungs *(Armbrustsprossenfibeln)*. Both have become one of the most popular Balt ornaments dated to the Late Migration Period.

A detailed analysis of Schönwarling/ Skowarcz and Dollkeim/Kovrovo brooches offers insight into the interchange between workshops on both sides of the Baltic Sea. Foreign patterns were assimilated and transformed in a new environment becoming very different from the original model. A good example could be the relief ornament used in decorating crossbow brooches in question in the Balt lands (e.g. Lermontovo, Kosewo, Vidgiriai) or the presence of a double chord (e.g. Eketorp, Møllebakken) and a metope on the top of the bow (e.g. Hablingbo, Sorte Muld) on the Baltic islands. In all cases these are features "imported" from the other side of the sea being there unique for types in question.

It is worth noting that workshops around the Baltic Sea were linked by common ideas. A representative example appears to be the presence of caterpillar-like decoration recorded on Bornholm, in Samland and the Gołdap area of the Sudovian Culture. The same character is revealed by the tendency to narrowing the foot observed in Samland and the Baltic islands as well as the stamp ornament, very popular on Gotland, but known also on Öland and in the Balt lands.

2.3. Star- and spade-footed brooches with crossbow and cruciform construction

Crossbow brooches with star- and spade-like foot (*Stern- und Schaufelfußfibeln*)

Introduction

Star- and spade-footed crossbow brooches have already been analysed in detail (A. Bitner-Wróblewska 1991a). Below are presented only the main theses pertaining to the question of the transmission of the design along the Baltic coasts one that is central to the present study. A new ordering of the fibulae in question (Appendix G) makes this point easier to follow. The addition of new fibula finds has not altered the general idea.

The brooches in question have a crossbow construction, full catch-plate and a foot terminating in a semicircular plate, its edge plain, serrated or decorated with a row of perforations or points (Pls. XXXVI, 1; XXXVII, 1; XXXVIII, 1, 6; XXXIX, 1; XL, 1; XLI, 1). They were usually made of bronze, often with silver inlay. They are one of the characteristic types of ornaments in the south-eastern Baltic zone during Early Migration Period. Under the most recent classification seven brooch types are distinguished depending on the shape of the foot (Pl. XXXV). This classification helps towards grasping the differences in chronology and for tracing the route of transmission of the design.

Type I

This type includes specimens with a semicircular plate on the foot, without serration (Pl. XXXV, 1)[1]. Variation in the type I specimens concerns the size of the plate (comp. Dzierzęcin, grave 22; Dębczyno 6, feature 47) and the presence or absence of a knob on the head (comp. Dębczyno 3, feature 300; Warnikam, grave 25). Several finds feature a "dead" spring (Skowarcz; Dębczyno 6, feature 47; Pruszcz Gdański 5, grave 24; Warnikam, grave 25). The bow in type I brooches is massive, triangular in section, lacking the rectangular metope characteristic for all others types of star- and spade-footed fibulae. The foot is often decorated with a stamped ornament of multiconcentric circles and semicircles as well as points or notches as main motifs. Silver inlay covering the foot-plate is rarely seen.

Spade-footed brooches type I emerged on the periphery of distribution of Late Roman Period *Schildfibeln* (W. Matthes 1931: 35–39; H. Schach-Dörges 1970: 62–63), which seem to be their source of inspiration. Crossbow fibulae type I provided stimulus to workshops of the Dollkeim/Kovrovo Culture where the star-footed brooches originated. While specimens with a spade-like foot continued to be a rare local variation of crossbow brooches, star-footed brooches flourished in the eastern Baltic zone.

Type I occurs in two small concentrations (Fig. 11) one of them in central Pomerania (Dębczyno Group) the other in the region of the

[1] The need to group together the brooches in question was also noticed simultaneously by H. Machajewski (1992a: 31–33) who distinguished them as variant 3 of his highly heterogeneous group H. The classification made by the author and recalled here seems more consistent. The list of finds (see Appendix G) is more complete including an item from north Elbian Circle, namely Stenderup, grave 3/31, cited incorrectly by H. Machajewski as Schoissel, Kr. Segeberg (H. Machajewski 1992a: 33).

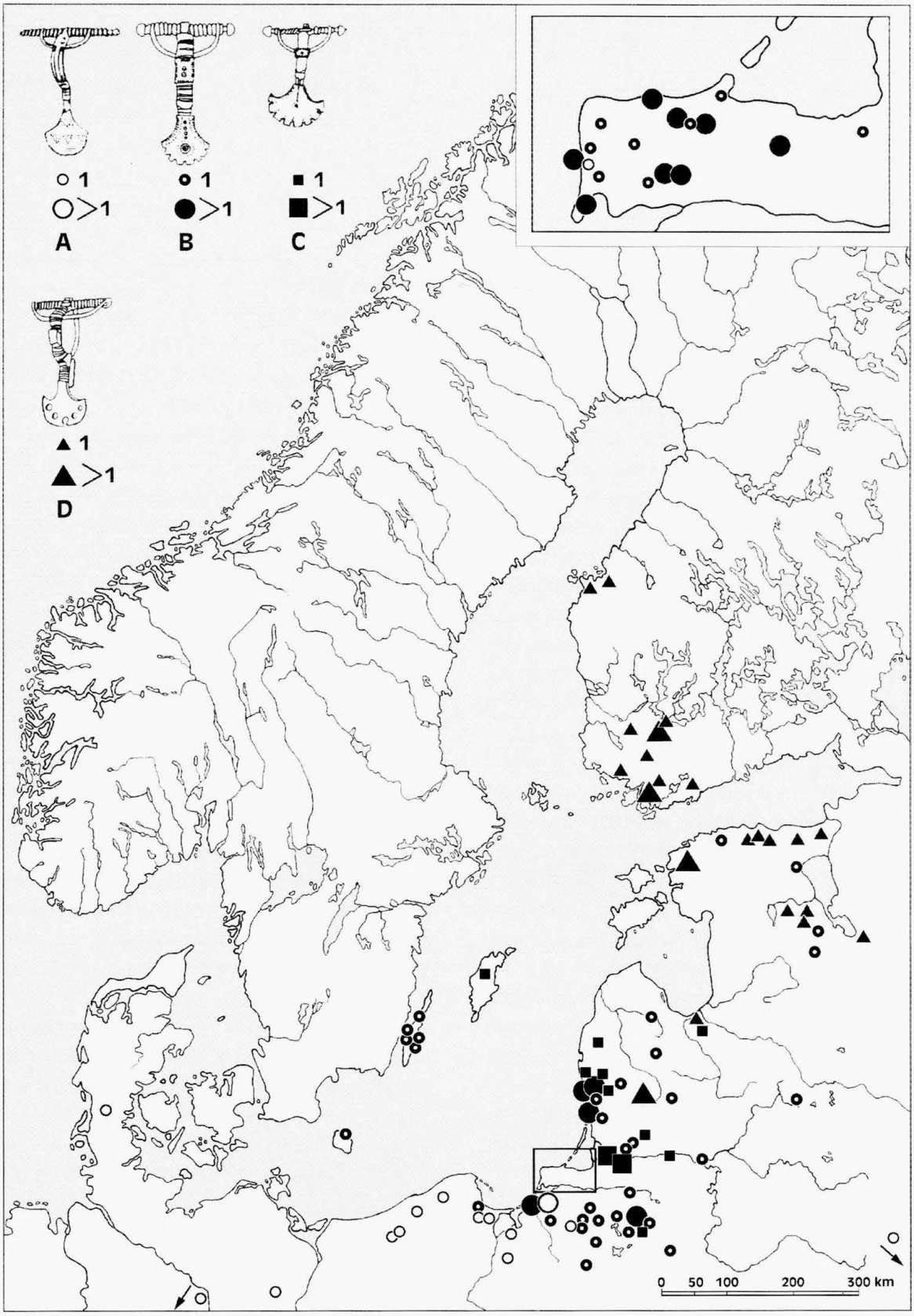

Fig. 11. Distribution of crossbow brooches with a star- or spade-like foot. A – type I; B – type II, IV, V; C – type III; D – type VI, VII. Specimens of undetermined variant are not included.

Vistula mouth (the Wielbark Culture and the neighbouring area of the Dollkeim/Kovrovo Culture). Single, dispersed finds are recorded in the Elbian Culture Circle, Bogaczewo Culture and as far to the south-east as Kiev Culture. The specimen from the latter area appears especially interesting because of its ornament, highly similar to the one seen on a fibula from Warnikam, grave 25. In both these fibulae the foot is decorated with groups of stamped semicircles formed into triangles (A. Bitner-Wróblewska 1991a: Pl. I, 10, 12). The row of semicircles is placed along the edge of the foot. The problem of links connecting Balt lands with south-eastern Europe will be discussed below in association with type Sensburg/Mrągowo brooches (see Chapter 2.4.).

The presence of brooches type I in the Elbian Culture Circle confirms that it was closely connected with Dębczyno Group. Influences from the Elbian Culture Circle and their role in emergence of Dębczyno Group have already been discussed in literature (H. Machajewski 1988).

Types II (classic), IV and V

The classic, star-footed type II originated in the Dollkeim/Kovrovo Culture, in Samland and surrounding areas, spread from this region to other Balt territories and to Finnish lands. As types IV and V represent degenerated forms of the classic form they will be discussed together.

Type II includes specimens with a star-like foot featuring a semicircular or, more rarely, circular plate its edge decorated with numerous shallow serrations (Pls. XXXV, 2; XXXVIII, 1, 6; XXXIX, 1). The presence of a rectangular metope on the top of the bow appears to be one of the most characteristic features in this type of fibula. Both the foot and the metope are typically inlaid with silver sheet and decorated with a stamped design – usually multiconcentric circles and various star motifs (A. Bitner-Wróblewska 1991a: Fig. 1). The bow is often decorated with groups of transverse grooves (e.g. Warnikam, graves 30, 31), rows of points (e.g. Greibau, grave 210) or fine geometric facetting on the surface, so-called "fish scales" (e.g. Kovrovo, graves 162, 164). The latter is typical almost exclusively for the Samland Peninsula. Dispersed finds with such a decoration of the bow known from outside this area reflect very well the range of direct Samland influences (Fig. 12).

Among brooches type II is a group of squat items of different proportions in which the length is approximately the same as the width (e.g. Aukštkiemiai, grave 132; Övre Ålebäck; Grunajki). They occupy a later chronological position because in their proportions they resemble fibulae dated to the Late Migration Period (comp. J. Heydeck 1895; N. Åberg 1919: Figs. 4–6, 178, 180–183).

Star-footed brooches of type II occur in concentration primarily in Samland Peninsula as well as other territories of the Dollkeim/Kovrovo Culture (Fig. 11). The main centres appear to be areas around the cemeteries in Kovrovo, Grebieten and Greibau, all situated in Samland. The next distinct concentration is visible in the West Lithuanian Group, traditionally connected with Samland. The same character is represented by a group of finds recorded in the Gołdap area of Sudovian Culture. Other Balt territories produced a much smaller number of finds. Isolated scattered specimens are known from the Tarand Culture. In this context it is worth recalling the presence of a small concentration of fibulae type II on Öland. Five imports from the Dollkeim/Kovrovo Culture recorded on that island suggest existence of lively direct contact between these two areas. Apart from this concentration there only single specimens are on record west of the Balt lands, namely a brooch from Bornholm and a specimen recorded to the west of the Lower Vistula, on Wielbark Culture territory (Pruszcz Gdański 5, grave 1). While the former may be viewed as a result of long-distance contacts of Samland, the latter should be analysed in association with Balt expansion in the direction of the Vistula delta.

Star-footed brooches continued in use long enough to develop into simple degenerated forms such as type IV and V (Pl. XXXV, 3–4). Type IV features a circular foot-plate decorated on the edge with a small number of serrations (e.g. Greibau, grave 216). Specimens of this type occur almost exclusively in the Dollkeim/Kovrovo Culture (see Appendix G); only two such items are known from

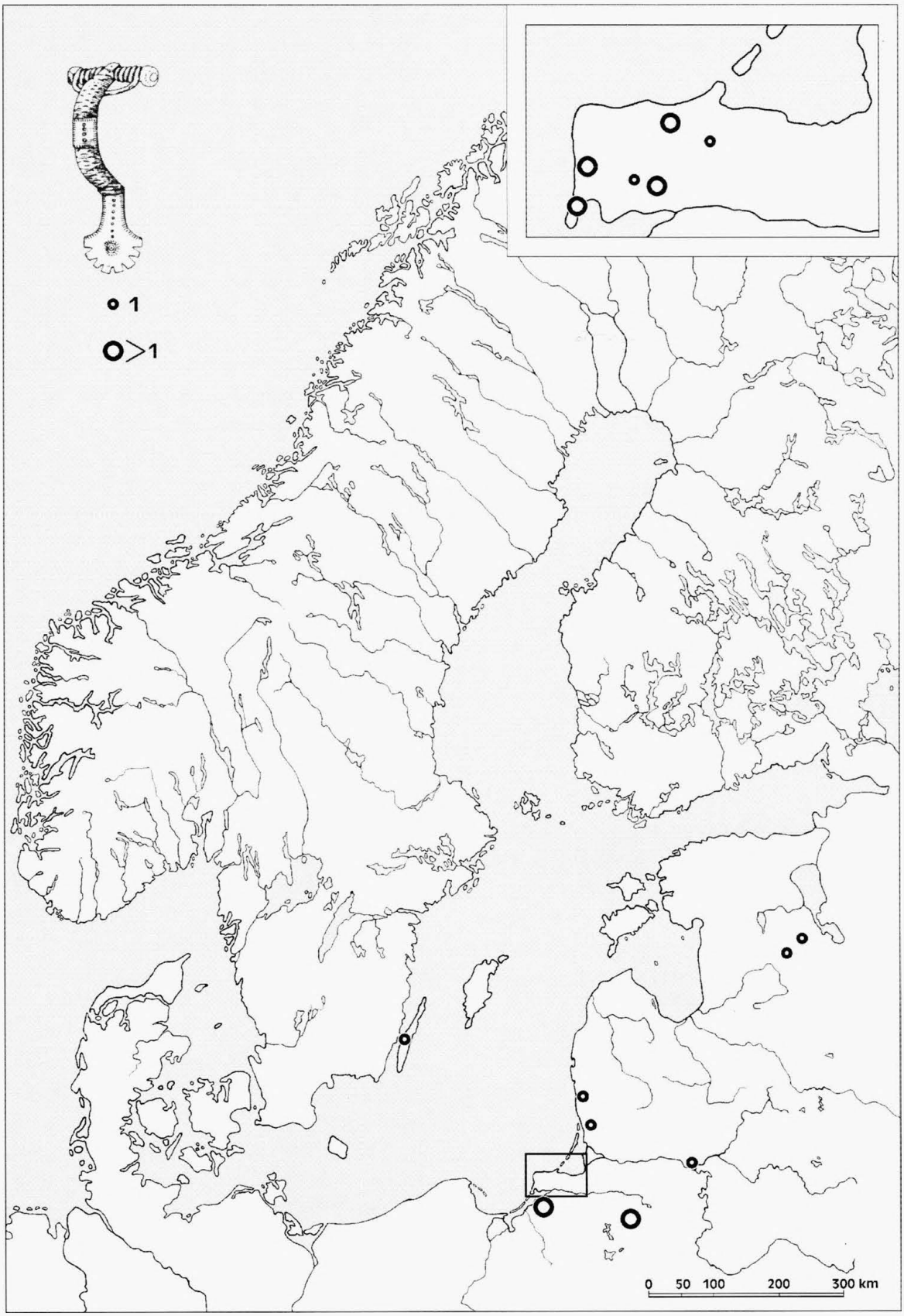

Fig. 12. Distribution of star-footed brooches type II decorated with "fish-scales".

outside this area, in the West Lithuanian Group. Brooches of type V have a slightly marked serration along the edge of the foot. They seem to have been a marginal production, soon abandoned. Only two examples of this variation of classic star-footed fibulae are recorded on the northern and the southern border of the Dollkeim/Kovrovo Culture (see Appendix G). It is noteworthy that both these items are in iron, which is very rare among this category of artefacts. Two other type V specimens were found in northern Estonia, in Tarand Culture. Their occurrence so far to the north may not be accidental. Two type II brooches and type VI specimens similar to classic ones are also on record in Estonia suggesting its special position as one of the main partners of Samland in the eastern Baltic zone.

Type III

While types IV and V represent the degeneration or imitations of classic star-footed brooches, type III might illustrate how this ornament underwent local modifications in the course of its transmission along the eastern coast of the Baltic. In type III the fan-like foot is substantially expanded. There are two variants: variant A – with serrated rim with few, very broad teeth and a typologically later variant B with a row of perforations along the edge (Pls. XXXV, 7–8; XL, 1; XLI, 1). The foot-plate and the metope on top of the bow feature silver inlay covered with stamped points placed centrally and along the edges. A number of plain specimens laid with silver sheet is also on record (e.g. a pair of brooches from Rzhevskoe, grave 267).

In their distribution type III fibulae are almost exclusively limited to the Lower Nemunas and West Lithuanian Groups (Fig. 11). Single finds are known from the Gołdap area of Sudovian Culture, Samogitian and Semigallian Flat Cemeteries Groups and Gotland[2]. The fibula from Gotland represents a local variation of type IIIA. It has a flat and very wide chord decorated with the stamp ornament and imitations of crossbow construction, features unusual for star-footed brooches but observed among fibulae finds on the island (B. Nerman 1969: Pls. 1–4). This would be a striking example of external influences from the Lower Nemunas area or western Lithuanian coast superimposed on a local tradition.

Types VI and VII

These types originating in Finnish lands are another example of local modifications of star-footed brooches (Pl. XXXV, 5–6). Type VI is a simplification of the classic design. The circular foot-plate features 5 or 6 serrations separated by rounded spaces. In some brooches (items from Karhiniemi and Palomäki) these rounded spaces meet and the result is a large aperture. It appears to be an intermediate variant of the typologically later type VII characterised by a row of apertures along the edge of the foot-plate. A rectangular metope on the top of the bow is seen in both types discussed in this section. The bow is decorated with groups of transverse grooves dents or plain. Only a few specimens feature silver inlay with stamp decoration placed on the foot and a metope (Pļavniekkalns, Notsjö, Paali). An exception among all star- and spade-footed brooches appears to be a pair of specimens found in grave at Kirimäe, west Estonia (Pl. XXII, 1–2). They feature bronze plates both on the foot and on the metope on the bow decorated with chip-carved spiral motifs. This ornamentation, associated with the Nydam style (comp. B. Salin 1904: Figs. 116–118, 134) reflects Scandinavian influences superimposed onto the local eastern Baltic type of brooch.

Distribution of types VI and VII in combination with their stylistic analysis offer insight into the transmission of the pattern (Fig. 11). Links connecting north Estonia with the Samland centre mentioned earlier in association with types II and V led to the emergence of new forms developed from classic star-footed brooches. Types VI and VII were produced in areas of Finnish settlement,

[2] In earlier publication of a brooch from Miętkie, grave 273, Bogaczewo Culture, was assigned to type IIIA (A. Bitner-Wróblewska 1991a: 72–73). The specimen had been described by N. Åberg (1919: 161) as being similar to a definitely type IIIA specimen from Bendiglauken (comp. N. Åberg 1919: Fig. 20). But according to information in Prussia Museum archives, part of which are found in Museum für Vor- und Frühgeschichte, Berlin, the fibula from Miętkie represents the classic type II.

notably in Estonia and south-western Finland. No such fibulae are recorded in the Balt environment except in two cemeteries – Maudžiorai, in the Samogitian Flat Cemeteries Group and Pļavniekkalns, in the Semigallian Flat Cemeteries Group. The latter lies in the region of the mouth of the Daugava River, an area of mixed Balt-Finnish settlement. A loose find from Pskov may be treated as an import from neighbours settled on the other side of Peipsi Lake.

Chronology

Crossbow star- and spade-footed brooches from the eastern Baltic zone are, basically, a chronological indicator of phase D, Early Migration Period (A. Bitner-Wróblewska 1991a: 54–56, diagrams 1, 2). Their specific variants appear in its different stages, the latest being dated to early phase E.

The earliest type I specimens having a small slightly developed spade-like foot-plate, as the find from Rakowiec, grave 2 and Dzierżęcin, grave 22 could be associated with Late Roman Period context. The former is morphologically connected to certain variants of *Bügelknopffibeln* assigned to phase C_2 (E. Meyer 1976: 84–87). The latter was dated by K. Godłowski (1981: 67–68) to the end of the 4th and beginning of the 5th c. But its resemblance to the Late Roman Period item from grave 10 in the same cemetery (D. von Kleist 1940: Pl. 48: 1; 1955: 26, Pl. 28: 1) makes it possible to refine this chronology somewhat. A brooch from Dzierżęcin, grave 22 seems to be connected with the beginning of the 2nd half of the 4th c.

The other specimens of type I are assigned to phase D. This is illustrated well by two assemblages representing different stages of Early Migration Period, namely grave 24 from Pruszcz Gdański, site 5 and the rich inventory from a sunken dwelling (feature 300) at Dębczyno, site 3 settlement. The recently discovered grave 24[3] (Pl. XXXVI) produced the spade-footed brooch type I, a Thomas type III comb, variant 1 (S. Thomas 1960), a tongue-shaped strap end and buckle with a rectangular ferrule and stylised animal head on the spike end. This belt set is stamp-decorated in the Untersiebenbrunn style and may be connected with this horizon. Feature 300 from the Dębczyno settlement (Pl. XXXVII) may be assigned to the later stage of phase D. Among other finds it produced fragments of a Snartemo glass beaker (E. Straume 1989) and a Wiesbaden brooch (J. Werner 1981). Feature 300 may date to sometime within the 1st half of the 5th c.

Star-footed brooches (types II, IV and V) recorded in the Dollkeim/Kovrovo Culture become an indicator of its phase 5., according to the periodisation recently put forward by W. Nowakowski (1996: 53, Table XVI no 35–40). They co-occur in assemblages with tongue-shaped strap ends and oval buckles with a metope at the spike base (e.g. Greibau, grave 63; Kovrovo, grave 161, 164 – Pl. XXXVIII, 4–6, 8). A representative example appears to be the grave 43 from the southern section of the Grebieten cemetery (Pl. XXXIX). Its inventory includes i.a., a type II star-footed fibula, the belt set described above, spurs type VIII according to Godłowski, a conical shield-boss and bucket-shaped urn (*Eimerurne*). Latest assemblages containing star-footed brooches in the Dollkeim/Kovrovo Culture seem to be graves 30 and 31 at Warnikam (Pl. XXXVIII, 1–3, 7), from where are known jugs of Murga type dated to the 2nd and 3rd quarters of 5th c. (J. Tejral 1982: 156–160, Figs. 58–59; 1986: 123–132, Figs. 12–18).

Type II fibulae found outside the area mentioned above, being generally an indicator of phase D, continue in use into the onset of phase E. This may be confirmed by grave 132 from Aukštkiemiai (Pl. XXX). Apart from a type II star-footed brooch this assemblage produced a bracelet with thickened terminals and an early variant of a buckle with a crosspiece at the spike base (*Kreuzdornschnalle*). The latter is characteristic for Late Migration Period in the Balt lands (see N. Åberg 1919: 106–119, Figs. 154–156).

Type III star- and spade-footed brooches are dated to the later stage of phase D. At Rudaičiai I, grave 5 (Pl. XL), a star-footed fibula co-occurred with a massive wire decorated crossbow brooch (*Armbrustfibel mit Ringgarnitur*). Rzhevskoe,

[3] I would like to thank very much Mirosław Pietrzak who presented to me the drawings of this assemblage before publishing.

grave 267 produced i.a., bracelets with thickened terminals. The latest assemblage, datable to the Late Migration Period, is the grave 2 from Ģeistauti (Pl. XLI) where spade-footed brooches were associated with a type Daumen/Tumiany fibula (see Chapter 2.4.).

Type VI star-footed brooches may be taken as one of the signs of the onset of the Migration Period in the Finnish lands. Their special archaeological context, namely tarand type cemeteries which lack separate assemblages, makes it impossible to refine this chronology further. The same applies to type VII spade-footed fibulae (A. Bitner-Wróblewska 1991a: 63–67). Single close assemblages with type VII brooches (Kirimäe – Pls. XXI, 4–7; XXII, Hönsåkerskullen, Pļavniekkalns, grave 26) suggest that the type in question should rather be assigned to phase E.

Cruciform brooches with a star- and spade-like foot

Introduction

One of the most popular ornaments during the Migration Period in Norway are the cruciform brooches. A typical cruciform fibula features a head-plate with three knobs and an animal head on the end of the foot. The group of such brooches is quite heterogeneous. The latest typology proposed by J. Reichstein (1975) represents a highly complicated system of types, variants and isolated forms and is quite difficult to use. For most Scandinavian scholars H. Shetelig's classification from the early 20th c. continues to be more useful (H. Shetelig 1906). Reichstein's typology was recently criticised by M.-J. Bode who proposed a new system (M.-J. Bode 1998).

Among cruciform brooches from Norway some specimens (see Appendix H) have a foot with a semicircular foot-plate, its edge serrated or, more often, featuring a row of perforations or points (Pls. XLII, 1–3, 8; XLIII, 1–6, 8–9; XLIV, 1–5). The foot-plate as well as other parts of the fibula are frequently decorated with a stamped ornament. Their proportions differ from those of other cruciform brooches with a long bow in comparison to other parts of the specimen. A noteworthy feature is the presence frequently of a rectangular metope on top of the bow – feature rare seen in Norwegian brooches. Most of the spade-footed fibulae are of small dimensions; usually 5–6 cm long. They are almost exclusively made of bronze.

The just described type of cruciform fibulae was distinguished by H. Shetelig as series e – *"the brooches with the foot terminated by a semicircular plate"* (H. Shetelig 1906: 48–50; 84–88). In his opinion they are rather rare in Scandinavia and unlike specimens of other series there was no visible difference between specimens from eastern and western parts of the Scandinavian Peninsula.

In J. Reichstein's classification there are several types with a semicircular foot-plate, namely types Søndre Gammelsrød, Sagland and Ådland, as well as the so-called isolated forms (*Einzelformen*) – several fibulae defying classification (J. Reichstein 1975: 37–39). The types cited above differ from each other by the shape of the head, presence of knobs and the bow, although the criteria are not clear enough.

M.-J. Bode classified separately the forms of head-plates, bows and foot-plates (M.-J. Bode 1998: 25–33, Figs. 7–10). Spade-like foot-plate is represented by *Fußformen* 3–4.

The shape of the foot of certain cruciform brooches from Norway is highly similar to that of star- and spade-footed fibulae from the eastern Baltic basin described earlier. Stylistic similarities between these two areas were already observed in the past by Scandinavian archaeologists – first by A. Hackman (1905: 159–162) and H. Shetelig (1906: 8, 16, 48–50, 84–88), then N. Åberg (1919: 31–44). Among them especially Haakon Shetelig discussed this problem, but he only touched the subject briefly as he dealt with a lot of other questions in that work. His main conclusions concerning the source of inspiration are still correct unlike A. Hackman's hypothesis indicating an opposite direction of influence. Lately this question was raised again by the author (A. Bitner-Wróblewska 1995).

The presence of star- or spade-like foot in some Norwegian cruciform brooches doubtless

should be linked to influences from the south-eastern Baltic coast. The feature is completely unfamiliar in Norwegian fibulae as is the presence of a rectangular metope on the bow. All these features, "foreign" in Norway, are very much in evidence in the Balt environment. Inspiration from the latter is confirmed by the distinctly older chronological position of the Balt brooches with star- and spade-like foot to be discussed in the coming section.

Substantial morphological differences are noticeable among Norwegian brooches in question. This encouraged J. Reichstein to classify them into three types mentioned above. In the author's opinion unclear criteria of this classification make it difficult to use. However, it will probably be a more useful exercise to discuss the fibulae in question in connection with their territorial distribution. Norway's geography favoured the existence of a numerous local workshops following different traditions and habits. At the same time its coastal landscape promoted direct interchange between them. A morphological analysis of cruciform star- and spade-footed fibulae presented below also takes into consideration their spatial distribution.

Rogaland

The south-western region of Norway, particularly Rogaland, features the main concentration of cruciform brooches in question (Fig. 13) where 21 specimens were recorded, including three specimens with a star-like foot (Vestly; Horr, grave; Hovland – Pl. XLII, 1, 8). These brooches with a foot-plate decorated with serrations confirm direct links with Balt territory and suggest the latter area as a source of inspiration. Rogaland also produced a pair of fibulae (Tegle, Varhaug) with a row of perforations along the edge of foot-plate surrounded by an ornament imitating splits in the edge (Pl. XLIII, 2, 6). These specimens will be discussed in details below. The remaining cruciform brooches in question feature a plain semicircular plate on the foot. An exception appears to be a loose find from Ogna decorated with a group of multi-concentric circles on the foot (Pl. XLIII, 1). The same stamp decoration was executed on the head-plate and on the flat, faceted knobs of the head.

Studying items from Rogaland it is possible to point out several local features. One of them is the flat bow ornamented with a pair of parallel grooves (e.g. Lima; Horr, grave; Horr, loose find – Pl. XLII, 1). It is usually accompanied by faceted decoration of the upper part of the foot. The bow of the other brooches usually features a faceted surface with a rectangular metope on top of the bow. The metope may be decorated along its edges with engraving lines, e.g. Værsland, Obrestad.

Besides fibulae featuring the head-plate with well defined hemispherical knobs concave on the underside (e.g. Obrestad, loose find), numerous specimens feature degenerated head-plates. The general form tends to be preserved while the knobs lost their distinct design degenerating into flat head-plates with imitation knobs (e.g. Horr, Varhaug – Pls. XLII, 2; XLIII, 4–5).

A special variation of spade-footed cruciform brooches was yielded by graves at Tegle and Varhaug (Pl. XLIII, 2, 6). The decoration of the foot with a row of perforations has been described above. The upper part of the foot is ornamented with animals in profile, a feature more characteristic for sheet fibulae than cruciform specimens[4] (see B. Hougen 1967: Figs. 7–10, 15, 17–26). The head-plate with small knobs features an open-worked decoration along the edges. There are parallel ribs adorned the bow. Both brooches representing a very special variant of spade-footed cruciform fibulae were apparently produced by the same craftsman.

The two specimens discussed above are quite long (7.1 and 7.2 cm) while the remainder are shorter, ranging in length between 4.4 and *ca* 6.5 cm. An exception appears to be a 9.3 cm long item from a grave (?) at Obrestad.

South and south-eastern Norway (Vest Agder, Østfold, Vestfold, Oppland)

Apart from Rogaland Vest Agder produced another significant concentration of spade-footed cruciform brooches (Fig. 13). Unlike in Rogaland

[4] A cruciform brooch from Fen, Stokke, Vestfold with animal heads in profile appears to be a rare hybrid (H. Shetelig 1906: Fig. 102).

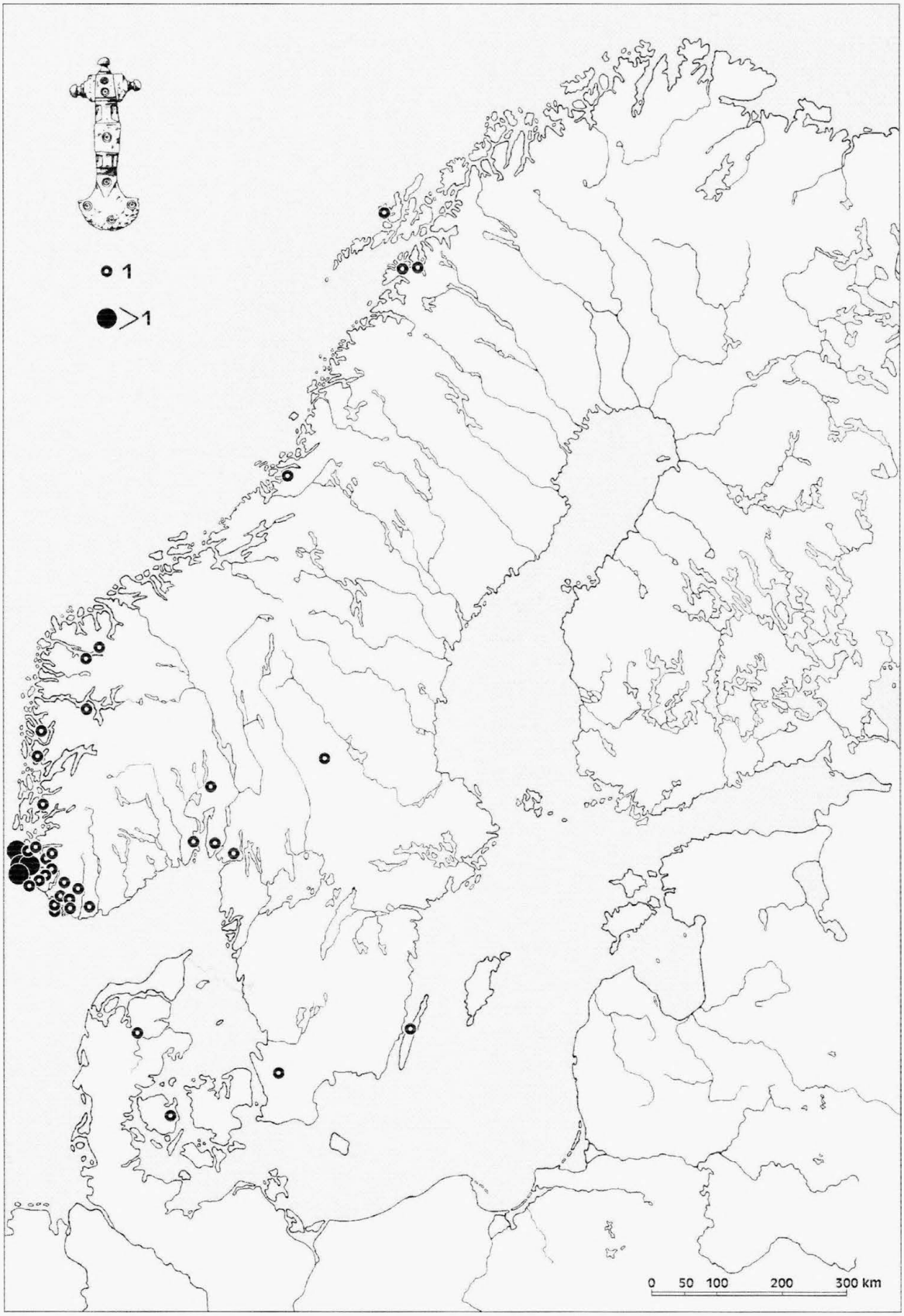

Fig. 13. Distribution of cruciform brooches with a star- or spade-like foot.

finds only a single specimen with a degenerated head-plate with a flat imitation of knobs was on record (Ågedal). Other fibulae from Vest Agder feature distinct, hemispherical or polygonal knobs. They are both solid and concave from the underside.

There are two types of bow – concave, with an expanded central section or faceted, with a rectangular metope on the top (Pls. XLIII, 8; XLV, 4). The upper section and the edges of the foot are typically faceted. These patterns may be regarded as local. There is no decoration on the foot-plate. The usual length of these brooches is *ca* 5–6 cm.

A very special form is represented by a specimen from Øvre Stoveland grave (Pl. XLIII, 9). Its foot features a row of perforations and splits along the edge. It looks like an imitation of the serrated rim in star-footed brooches. Instead of knobs on the head there are animal heads. The faceted bow features a marked elongation in its central part. A stamped multiconcentric circle ornament covers the head-plate, the bow and the foot. At 9 cm this fibula is longer than other specimens.

Around the Oslo Fjord several items are on record, similar to forms typical for Vest Agder. Specimen from Søndre Gammelsrød (Pl. XLIV, 2) is decorated with a stamped motif of multiconcentric circles. A similar ornament is seen on a degenerated specimen from Lundvoll. It has a flat bow and a flat head-plate with imitation knobs.

A remarkable form is represented by a brooch from Råstad in Oppland (Pl. XLIV, 1) found in the valley of the Rands Fjord, branch of the Oslo Fjord. The circular foot-plate features a slightly marked serration similar to one seen in type V crossbow star-footed fibulae. Large stamped multiconcentric circles decorate the central section of the head- and foot-plates.

West Norway (Hordaland, Sogn og Fjordane, Nord Trøndelag)

The western part of Norway did not produce any significant concentrations of brooches in question (Fig. 13). Single, dispersed finds are known from along the Bjørna and Hardange Fjords, Sogne and Innvik Fjords as well as Folda Fjord in Nord Trøndelag.

Brooches from Døso and Øvre Mjelde in Hordaland are similar to specimens described above. The fibula from Døso has solid hemispherical knobs on the head as well as a faceted bow and foot. The specimen from the latter location features a flat head-plate with imitation knobs. A fibula from Skrøppa, Sogn og Fjordane (Pl. XLIV, 3) is distinguished by its striking ornamentation of delicate engraved lines placed both on the head- and the foot-plate. A diagonal cross decorates the metope on the bow.

Sogn og Fjordane produced two further unusual brooches classified by J. Reichstein as isolated forms (*Einzelformen*). A specimen from Hove is a remarkably large – over 16 cm long. Such dimensions often seen among other cruciform fibulae are rare among spade-footed specimens. The two specimens in question also differ in their proportion from other spade-footed brooches: their bow is relatively short as compared to their long foot featuring a polygonal plate and a group of very well-defined ribs in the upper part. The spade-like plate ending the foot is decorated with semicircles along the edges.

Another untypical fibula from Sogn og Fjordane discovered at Bø (Pl. XLIV, 4) represents a variation of cruciform brooches without the third knob on the head-plate. The two knobs are large and hemispherical, hollow from the underside. The *Prachtfibel* specimen from Bø is striking because of its rich ornamentation. It was made of bronze with silver inlay. A stamp-ornamented sheet of gilt silver was placed on the spade-like foot featuring row of splits along the edge imitating the star-like foot-plate. A series of apertures runs some distance from the edge. Silver *Tauschierung* decorates the grooves on the head-knobs, the bow and ribs in the upper part of the foot. The brooch from Bø is also quite large, 11.3 cm in length.

A single find from Nord Trøndelag represents a hybrid of spade-footed cruciform fibulae. There is an open-worked circular plate on the foot. Hemispherical head-knobs are concave from the underside.

North Norway (Nordland)

The Lofoten islands and their surrounding yielded three spade-footed cruciform brooches. They recall specimens from the south and the south-western part of Norway. The close, direct connections between the latter and Nordland have already been discussed in literature (T. Sjøvold 1962: 233–240). The specimen from Finnøy differs from other finds in that it features a rather large rectangular metope on the top of the bow.

Outside Norway (Sweden, Denmark)

Cruciform brooches with a spade-like foot remain a local, Norwegian ornament. Isolated finds recorded out of Norway (Fig. 13) may be regarded as a result of Norwegian influences. One such fibula was found at the trading place at Gudme, Fyn. The site, which maintained distant commercial and cultural links produced a degenerated cruciform brooch with flat knobs on the head-plate. The circular foot-plate was perforated along the edge. Both the foot- and the head-plate were stamp-ornamented. While it is difficult to find a direct analogy among Norwegian brooches this direction of influence is evident. The same may be said of another distinct cruciform fibula from Denmark discovered somewhere in northern Jutland[5]. Links between the latter and south-western Norway have already been discussed in literature (M. Mortensen 1992).

Three spade-footed cruciform specimens were recorded in Sweden, in Scania, Dalarna and Öland. The latter produced a hybrid of typical cruciform brooches and those with a spade-like foot (Pl. XLIV, 5). The knobs on the head have been replaced by animal heads. Let us recall that a similar design is seen on the already discussed specimen from Øvre Stoveland in Vest Agder. A pair of parallel grooves on the bow are reminiscent of local, Rogaland features but the fibula from Isgärde on Öland has a massive, triangular-sectioned bow instead of a flat bow usual in Rogaland specimens.

A local variation of Norwegian spade-footed cruciform brooches appear to be items found in Dalarna, western Sweden and in Scania.

Chronology

In general, cruciform brooches in Norway may be viewed as indicators of the Migration Period, in absolute chronology dated to the 2nd half of the 4th c. until the 6th c. according to H. Shetelig (1906: 117–154) and J. Reichstein (1975: 67–72, 107–109) or to the period from around 400 AD to the end of the 5th c., by B. Magnus (1975: 109–134). The spade-like foot of cruciform specimens was considered by all these scholars as a rather late feature, appearing in late stages of development of these fibulae. H. Shetelig related this variant (series e) to his period III and IV, corresponding in absolute chronology to the second half of the 5th until the mid 6th c. (H. Shetelig 1906: 153). In his opinion this type of cruciform brooches belong mainly in period IV.

J. Reichstein dates all types of spade-footed cruciform fibulae (types Søndre Gammelsrød, Sagland, Ådland) to his phase D_3 which in absolute chronology corresponds to the second half of the 5th and the early 6th cc. (J. Reichstein 1975: 70, 107–109). According to M.-J. Bode spade-like foot form belongs to the latest group of fibula elements combination co-occurring with artefacts decorated in Style I (M.-J. Bode 1998: 62).

An exception appears to be the assemblage from Bø (Indre Bø) associated with Early Migration Period weapon combination, the Kvamme-Group, according to the J. Bemmann & G. Hahne classification (J. Bemmann & G. Hahne 1994: 316–320, 542). This weapon combination is dated to the period from 400 AD to the mid 5th c. The dating bases on the Evebø grave which produced a *solidus* of Theodosius II minted in 425/430 AD. The *Prachtfibel* from Bø represents a unique variant of spade-footed cruciform brooches lacking the third knob on the head-plate and with the foot imitating classic star-like specimens seen in the Balt lands.

Typical spade-footed cruciform fibulae co-occur with late classic cruciform ones, bird-pins,

[5] The brooch in question is now kept in the National Museum in Kopenhagen. According to the inventory book it is a result of exchange between the National Museum and private collector from Viborg, Jutland in the 2nd half of 19th c. This fibula was probably found somewhere around Viborg.

bucket-shaped pots and clasps (e.g. Lunde "Spansksłottet", Værsland, Døso, Holmen, Horr – Pls. XLII, 1–7; XLV). Among close assemblages with spade-footed cruciform brooches it seems to be possible to distinguish chronological differences. The earliest grave appears to be the Lunde "Spansksłottet" inhumation (Pl. XLV). It yielded several cruciform brooches, among them a remarkable interesting item (Pl. XLV, 1) featuring chip-carved spiral motifs on its head-plate and stamped ornamentation on the bow and foot. The presence of both Sösdala and Nydam styles in one and the same specimen, being a remarkable addition to the discussion of ornamentation styles suggest that the dating of this grave should be pushed back to the slightly earlier part of Norwegian Migration Period, namely Bakka's *Stuffe I/II*. In absolute chronology this corresponds to the second and third quarters of the 5th c.

A later chronological position is occupied by another grave from Lunde (Pl. XLVI, 1–9) where a pair of spade-footed cruciform brooches was associated with a type Horr/Kvassheim fibula, a horse-shaped brooch (*Pferdefibel*), another specimen with a ring on the foot and Style I-decorated form B1 buttons according to J. Hines classification (1993: 25–28). It belongs to Bakka's *Stufe III/IV* which corresponds to the period starting at the end of the 5th and covering the first three quarters of the 6th c.

An intermediate chronological position between these two assemblages is occupied by grave II from barrow 2 at Døso (Døsen). This is strongly supported by the stratification of the barrow (J. Reichstein 1975: 71–72). Grave II was disturbed by the younger grave I containing late relief and equal-armed brooches as well as clasp buttons B1 with faceted designs assigned to *Stufe IV* (see J. Hines 1993: 18).

Finds from graves at Holmen and Grindheim have the latest chronology. Apart from a bird-pin and bucket-shaped pots, the former produced a pair of late cruciform brooches and a relief brooch (J. Reichstein 1975: Pl. 40). It should be underlined that the spade-footed brooch from Holmen represents a degenerated form of cruciform specimens lacking distinct knobs on the head-plate.

The Grindheim find includes a fragment of a spade-like fibula, i.e., the foot probably belonging to a cruciform specimen, which is associated with three bucket-shaped pots and an equal-armed brooch (Pl. XLVI, 10–11). Such brooches have not yet been analysed in relation to any Norwegian chronological system, as Bakka's or Straume's ones. But a comprehensive study of other Scandinavian material makes it possible to assign them to Bakka's *Stufe IV* and later. Equal-armed brooches are dated to the Late Germanic Iron Age (comp. L. Jørgensen & A. Nørgård Jørgensen 1997).

Square-headed brooches with spade-like foot. Type Horr/Kvassheim

Introduction

Apart from cruciform brooches a spade-like foot occurs in small square-headed fibulae (see Appendix I). Their foot features a semicircular occasionally markedly expanded fan-like plate (Pls. XLVI, 4; XLVII, 1–2; XLVIII). There are no items with a serrated rim. The foot is frequently stamp-decorated. Analogically to cruciform brooches discussed above there is often a rectangular metope on the top of the bow. Square-headed fibulae are made of bronze. Their length is from 4.5 to *ca* 6 cm.

H. Shetelig (1911) called them *"små spænder"*, together with a large number of other small brooches from the Migration Period having a completely different morphological design[6]. The specimens in question were classified by him to group A.2 which includes smaller variants of relief fibulae (H. Shetelig 1911: 58–68, Figs. 23–26, 29–32). All of these items have a rectangular head-plate differing from one another by the shape of the foot-plate and type of ornamentation. To the author such diversity seems unacceptable and

[6] The problem with classification of square-headed brooches with spade-like foot could be well illustrated by the fact that in computerized information system in some Norwegian museums (e.g. Universitetets Oldsaksamling, Olso) they are added to the cruciform specimens.

a further subdivision is needed; consequently, square-headed brooches with a spade-like foot lacking relief ornament have been distinguished as a distinct category of fibulae. The author proposes to call them "type Horr/Kvassheim"[7] basing on cemeteries from Rogaland of the same name the latter of which appears to be one of the largest and most important Norwegian cemeteries dated to the Migration Period (G. Lillehammer 1996). Kvassheim produced three brooches in question. Additional specimens are recorded at placed nearby Horr cemetery. They are representative for type in question including both the items with metope on the bow and those with plain bow as well as decorated and undecorated specimens. A further subdivision of brooches type Horr/Kvassheim seems to be useless. The analysis will be done in the connection of their territorial distribution.

They occur in concentrations in Rogaland and Hordaland, in west and south-western Norway (Fig. 14). There are more than 50% of all these specimens recorded in Norway. The other regions produced a few or, more often, single finds.

Rogaland

Among brooches known from Rogaland dominate undecorated items with plain or faceted bow. A rectangular metope on the top of the bow reveals a few specimens (e.g. Horr, loose find – Pl. XLVII, 1; Marvik). A pair of identical fibulae found in Kvassheim, grave 126 is adorned with stamps (Pl. XLVII, 2). The row of multiconcentric semicircles was placed along the edges of head- and foot-plates. The brooches in question feature a triangular plate in the upper part of the foot. This pattern is seldom recorded in the case of spade-footed cruciform specimens from Rogaland and south-eastern Norway (e.g. Værsland, Obrestad, Søndre Gammelsrød). The fibulae from grave 126 in Kvassheim have also got a small elongation on the edge of foot-plate. The same pattern features a loose find from Horr. It is unknown on any other brooch type Horr/Kvassheim. The third specimen from Kvassheim cemetery is without such elongation. It has got a rectangular metope on the top of the bow being decorated by engraving lines. The foot-plate is undecorated.

Noted above fibula from Horr is worth to point out because of its foot decoration (Pl. XLVII, 1). There is row of small notches along the edge, which could be regarded as imitation of serrated rim of star-footed brooches. The faceted bow has got rectangular metope.

A special discussion needs an item found in Rivaland i Årdal. This fibula (Pl. XLVII, 8) was repaired in the past and a spade-like foot was joined to the rest of a different brooch using rivets to keep together the foot and the bow[8]. The semicircular plate of spade-footed square-headed[9] brooch apparently seemed so attractive as a rather untypical ornament in a Norwegian environment that it was worth to repair the fibula.

South and south-eastern Norway (Vest Agder, Østfold, Vestfold, Buskerud, Telemark)

Several square-headed brooches with spade-like foot found in this part of Norway differ from described above items from Rogaland. They feature a distinct stripe placed along the edge of the head-plate (e.g. Lunde, Moi Øvre – Pls. XLVI, 4; XLVIII, 1). Except one item from Bråten, Buskerud the fibulae in question have a rectangular metope on the top of the bow. The latter is often faceted as well as the upper part of the foot. There is also a few items with triangular plate on the upper part of the foot – feature being discussed above (e.g. Gullhaugen, Torper – Pl. XLVIII, 2).

Most of the brooches in question are adorned with stamps and engraving lines covered the head- and foot-plate and the metope. The decoration of the foot was placed along the edge of the plate.

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[7] The name "type Kvassheim" could not be used, because it has already functioned in literature describing the older cruciform brooches in J. Reichstein's classification (see J. Reichstein 1975: 35).

[8] On the figure from first publication (SMÅ 1903: Fig. 3) the brooch in question appears to be an unit. But the author's study on the original specimen in Stavanger Archaeological Museum (S. 2547b) found an old reparation from the past which was partly covered by old conservation from probably beginning of 20th c.

[9] A markedly spread out fan-like foot being more characteristic for brooches type Horr/Kvassheim than cruciform ones lets treat the specimen in question as a part of square-headed fibula.

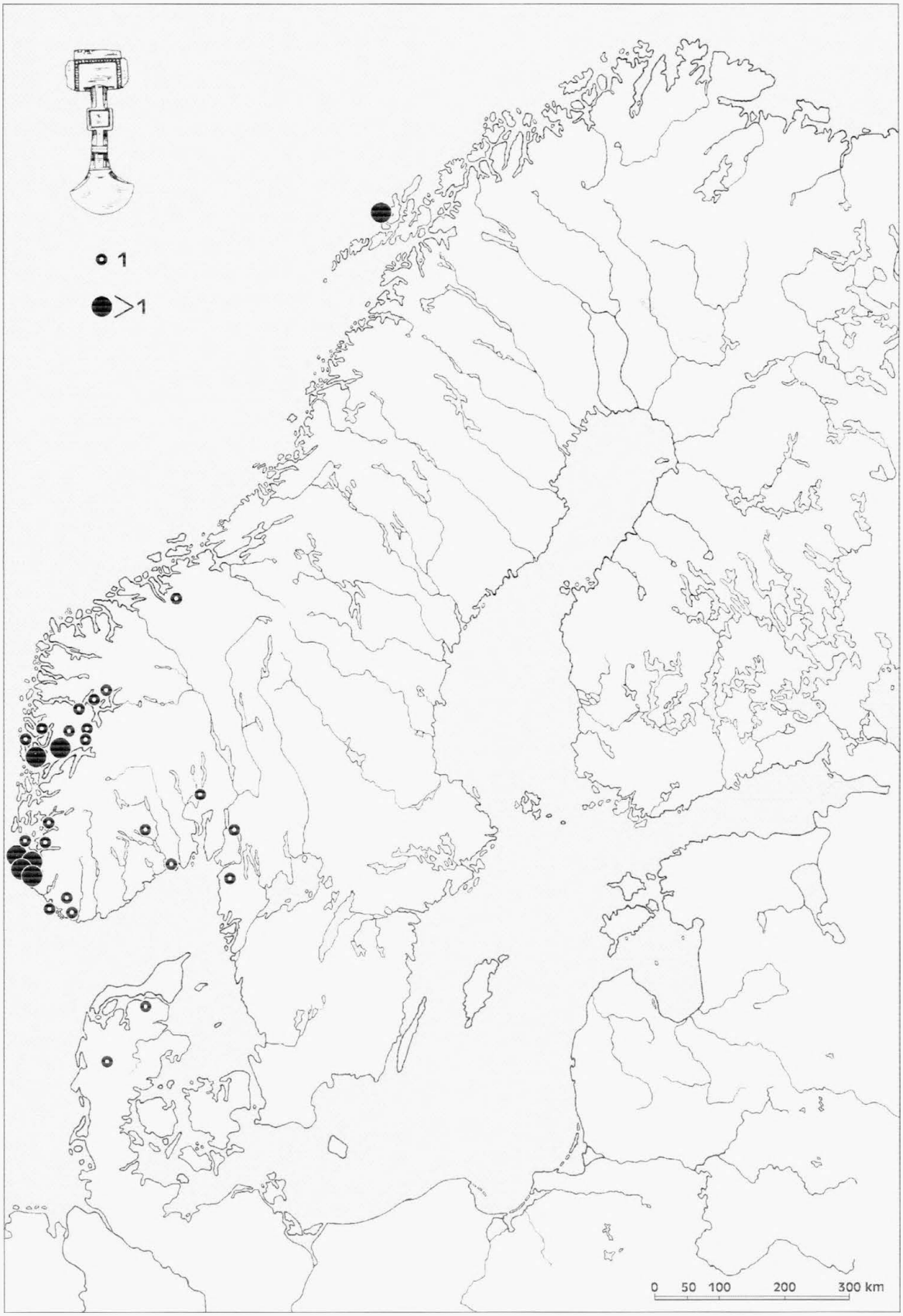

Fig. 14. Distribution of square-headed brooches with a spade-like foot, type Horr/Kvassheim.

There is row of points, circles or semicircles done by stamps. The richest ornamentation covers an item from Moi Øvre (Pl. XLVIII, 1) which differs from the others because of its dimension; its length is 7.1 cm.

West Norway (Hordaland, Sogn og Fjordane, Møre og Romsdal, Nord Trøndelag)

Apart from Rogaland a substantial concentration of type Horr/Kvassheim fibulae occurs in Hordaland (Fig. 14). A few finds are recorded along Sogne Fjord while single, dispersed items occur in Møre og Romsdal and Nord Trøndelag. It is worth noting that finds from these areas are more similar to specimens from south and south-eastern parts of Norway than to those from the neighbouring Rogaland.

Western Norwegian brooches, like specimens from southern Norway, feature a stripe along the edge of the head-plate. The latter often decorated with stamped ornament or engraved lines (Pl. XLVIII, 3–4). A similar ornament is also seen on the foot-plate. Some specimens besides featuring a faceted bow with a metope also have an expanded central section (e.g. Bolstad, Løn – Pls. XLVIII, 4; XLIX, 1). This pattern is also encountered among spade-footed cruciform fibulae recorded in south-eastern Norway.

Hordaland produced two untypical type Horr/Kvassheim brooches discovered at Gjukastein and Nordre Birkjeland (Pl. L, 1). Problem with their classification are indicated by the fact that J. Reichstein distinguished them into isolated forms (*Einzelformen*) of cruciform fibulae (J. Reichstein 1975: 126), while H. Shetelig treated them as square-headed ones (H. Shetelig 1911: 64–66, Fig. 25). The latter opinion is apparently more justified. The brooches in question have no knobs on the head instead, three flat elongations may be seen on their rectangular or oval head-plates. Rows of numerous small circles were placed along the edges of the foot and on the head-plate.

Two striking type Horr/Kvassheim fibulae are known from two sites on opposite sides of Sogne Fjord, at Hove and Henjum. They feature a semicircular head-plate, a design unknown among the other specimens of this type. But the presence of a spade-like foot and the shape of the bow encourages the author to include them in the category in question.

North Norway (Nordland)

A barrow at Ramberg Sandholmen, on Lofoten islands produced four square-headed brooches with a spade-like foot. They have features characteristic for items from southern Norway, namely a stripe along the edge of the head-plate, a bow with an expanded central section and a triangular plate on the upper part of the foot. A local pattern is probably the dimension of the foot-plate, much bigger than on any of the fibulae in question (Pl. XLVIII, 5–6).

Outside Norway (Sweden, Denmark)

Analogously with spade-footed cruciform brooches, type Horr/Kvassheim represents a local Norwegian category of ornament. Its distribution suggests that it was even a more endemic form. The only finds known outside Norway are recorded in its proximity (Fig. 14). A specimen known from Bohuslän, Sweden, which may be treated as the same culture region as Østfold. The other square-headed type Horr/Kvassheim brooches was found at a trading place at Sebbersund at Limfjord, in north Jutland. Close connections linking the latter territory with south-western Norway have mentioned earlier. A third fibula of the type in question was recorded at an unknown site in Denmark. It features a markedly extended fan-like foot with a row of apertures along the edge and resembles the earlier discussed unusual brooch from Gjukastein, Hordaland.

Chronology

The later chronological position of spade-footed brooches discussed above in association with cruciform specimens applies also to square-headed Horr/Kvassheim fibulae. They are broadly datable to Bakka's *Stufe III/IV* which in absolute chronology corresponds to the period from the end of 5th through the first three quarters of the 6th c. Graves at Døso and Lunde (Pl. XLVI, 1–9)

described earlier in which Horr/Kvassheim fibulae are associated with spade-footed cruciform specimens are probably a good proof of such dating. This is confirmed further by the graves at Ytre Arna and Stoveland which produced clasp buttons form B1, type iv a (with stamped patterns) and form B1, crescent and penannular forms (J. Hines 1993: 19–22) as well as by the weapon grave at Løn. The latter is dated to the late 5th – beginning of the 6th c. (J. Bemmann & G. Hahne 1994: 536).

Among Horr/Kvassheim brooches a substantial group of finds is connected with a rather late chronological context. A representative of this tendency appears to be grave 126 from Kvassheim (Pl. XLVII, 2–7). This grave, containing two fibulae in question, yielded two small, spade-footed relief brooches decorated in Style I and a D-bracteat in late Style I ornamentation (E. Bakka 1973: 69, Figs. 48–53). G. Lillehammer dated grave 126 to the 6th c. (G. Lillehammer 1996: 195, Pl. 21). The same character is shown by an assemblage from Nord Braut where a Horr/Kvassheim fibula was associated with a late relief brooch and form B1 clasp buttons with cross pattern. This grave could be assigned to Bakka's *Stufe IV* (J. Hines 1993: 21).

An assemblage find dated reliably to *Stuffe IV* at Rivaland (Pl. XLVII, 8–13) included a D-bracteat, a late relief fibula and form B1 clasp buttons with profile mask ornament (E. Bakka 1973: 69–70, Figs. 54–58; J. Hines 1993: 24–25). This grave contained the untypical repaired spade-footed brooch discussed earlier.

Among finds with the latest chronology a double grave from Nordre Birkjeland draws special attention (Pl. L). Apart from two square-headed fibulae with spade-like foot it produced a late cruciform specimen (J. Reichstein 1975: Pl. 51: 1), equal-armed brooch with a metope on the top of the bow and a set of weapons of the Nerhus-Group in J. Bemmann's classification (J. Bemmann & G. Hahne 1994: 329–336, 537). This combination weapon represents the latest stage of the Norwegian Migration Period and may be synchronised with A. Nørgård Jørgensen's phase I connected with the beginning of Late Germanic Iron Age (L. Jørgensen & A. Nørgård Jørgensen 1997: 91–92, Fig. 76). In absolute chronology it corresponds to the period from 520/530 to 560 AD.

Another confirmation of the prolonged use of type Horr/Kvassheim brooches is furnished by grave II at Nedre Stedje where a fibula of this type was associated with an equal-armed specimen (Pl. LI, 1–2). The chronological position of the latter has been discussed above.

Star- and spade-footed brooches. Conclusions

Star- and spade-footed brooches of different construction analysed in this chapter offer insight into unexpected stylistic links between Norway and Balt lands–phenomena, largely ignored previously[10]. While the connections between Norway and other regions bordering on the North Sea during the Migration Period are evident (J. Reichstein 1975; J. Hines 1984), the Baltic basin with its peoples was apparently too remote to make any impact on Norwegian culture. Ornaments discussed above suggest a turn of focus on "eastern" Norwegian links.

Crossbow fibulae in question are one of the characteristic ornaments in the south-eastern Baltic zone during the Early Migration Period. Originating in Samland and surrounding areas they spread to other Balt territories as well as to Finnish lands. Only a few finds of such brooches are recorded to the west of these regions. While the fashion for crossbow brooches with a star- or spade-like foot did not spread in the Scandinavian environment, these brooches inspired the shaping of the foot of certain Norwegian cruciform and square-headed specimens.

The extent of Balt influences in Norway is worth underlining. There are *ca* 90 cruciform and square-headed fibulae with a star- or, more often, spade-like foot found in the latter area (see Appendices H, I). Both categories of artefacts

[10] A good example of this situation may be the fact that spade-footed brooches type Horr/Kvassheim were often omitted in the figures, even if the rest of grave assemblage had been illustrated (comp. Kvassheim, grave 126 – E. Bakka 1973: Figs. 48–53; G. Lillehammer 1996: Pl. 21).

seem to have flourished in some measure on the margin of typical cruciform or square-headed brooches regarded as the latest chronological feature. Spatial distribution of cruciform or square-headed fibulae with spade-like foot tends to overlap. Differences concern the proportions – cruciform brooches concentrate particularly in Rogaland and Vest Agder, Horr/Kvassheim brooches manifest chiefly in Rogaland and Hordaland (comp. Figs. 13, 14). These concentrations correspond to the principal areas of settlement in Norway during the Migration Period (J. Petersen 1954; B. Myhre 1987). It is worth stressing that a special centre of spade-footed brooches is registered in Rogaland. The region emerged as the main partner for Samland and generally the entire south-eastern Baltic zone.

Brooches discussed in this section occur also around the Oslo Fjord and along the Norwegian coast up to the north, with a small concentration in Nordland, in the Lofoten islands and their surroundings (Figs. 13, 14). Close and direct links between the latter area and south-western Norway may also be confirmed by other categories of artefacts, e.g. bird-pins (T. Sjøvold 1962: 170). It was even put forward that this may have been a migration from Rogaland to the far north, although such a conjecture was recently criticised in literature (comp. T. Sjøvold 1962; B. Olsen 1991).

Finally, a number of isolated finds are known from outside the area mentioned, namely in Sweden and Denmark. But generally, cruciform and square-headed brooches with spade-like foot remain local, Norwegian ornaments. The handful of specimens recorded outside Norway may be viewed as a result of Norwegian influences, both direct and stylistic.

Studying the distribution of star- or spade-footed brooches in Norway one may indicate a number of local features as well as the interchange between workshops. The presence of a flat bow ornamented with a pair of parallel grooves observed in Rogaland seems to be a good example. Another such indication may be the bow with an expanded central section recorded in south-eastern Norway. The latter pattern is subsequently noted in the case of Horr/Kvassheim fibulae in Hordaland.

Cruciform and square-headed brooches with a star- or spade-like foot have been found relatively far from their source of stylistic inspiration (comp. Figs. 10, 12, 13). An open question that remains concerns the route of transmission of the pattern. Imaginably, a land route linked southern Finland with Norrland in Sweden and western Norwegian coast. The role of Helgö as a main "port-of-trade" for this part of northern Europe remains indisputable. The distribution of Style I – ornamented clasp buttons appears to be a good confirmation of such an assumption (J. Hines 1993: 25–28, Fig. 48).

Alternately, the Baltic islands with participation of Scania may have been instrumental as a *sui generis* contact zone, which is indicated by forms typical for both the western and eastern Baltic basin. Isolated finds of brooches in question known from southern part of Sweden as well as Öland, Gotland and Bornholm, seem to confirm this line of argumentation. The presence of typical Norwegian shield-like pendants as far to the east as Bornholm (see Chapter 3.) suggests this direction of Norwegian interests. Similar conclusions are prompted by the distribution of the die- and punch-linked bracteates linking Norway with Gotland (M. Axboe 1991: 197, Fig. 17; comp. K. Hauck 1987). A good example of far-flung "eastern" connections of Norway is the role played by the Baltic Sea in the distribution in Norway of glass beakers with facet-cuts (E. Straume 1987).

Last, but not least, the existence of a direct and lively interchange between workshops of the Balts and their counterparts in Norway may also be a possible explanation. Why might not Norwegian sailors from Rogaland or Hordaland have been able to sail as far to the east as Samland Peninsula or western Lithuania?

Such direct links might be corroborated by a brooch seen by the author in the Bergen Museum (B.7907) – a "missing link" in Balt-Norwegian contacts. It was found in a barrow at Li, Kvinherad, Hordaland (BMÅ 1928: 1012 no 14, Figs. 14–15). This fibula has a crossbow construction never seen elsewhere in Norway (Pl. LI, 4). The chord is broken; the bow was decorated with groups of transverse grooves and faceted on

the surface. On the top of the bow there is a rectangular metope ornamented with engraved lines. The foot has a flat plate on the end damaged along the edge by fire but the proposed reconstruction with a serrated rim is a pretty much how it must have looked before it suffered damage (Pl. LI, 4a). All features of this fibula – its construction included – the metope and decoration of the bow to the terminal of the foot are untypical or hardly seen in the Norwegian but quite familiar in the Balt environment. The brooch from Li is either an import from the Balt lands, probably Samland, or a local imitation directly inspired by eastern Baltic workshops. The latter assumption is prompted by the decoration of the bow. It is a combination of two different ways of ornamentation both of them well known in Balt lands, but usually occurring separately (comp. Pl. XXXVIII, 1, 6). It is worth noting however that both explanations require direct contacts with Balt workshops. The same character is revealed by a crossbow brooch with a band bow found at Nordre Fevang, Vestfold completely foreign in the Norwegian environment (C.7412; see H. Shetelig 1911: 70–71, Fig. 41).

The fibula from Li occurred in an assemblage dated to the later stages of the Migration Period (Pl. LI, 3–4) having been accompanied by an S-shaped brooch (type H. Shetelig 1911: 94 – 95, Fig. 86) and with a typical Scandinavian clasp button, form B1, type iv with stamped patterns (J. Hines 1993: 21–22, 113). The barrow from Li in Hardangerfjord was built for a Norwegian lady who must have been the owner of a foreign ornament brought directly, either as an item or idea, from south-eastern Baltic coast. The presence of Scandinavian dress elements contradicts to interpret this grave as a sign of intermarriage between the élite in Norway and the Balt lands. But on the other hand there are the Nordic ethnological analogies, among them from Hordaland, that a bride was to adopt the costume where she went to (E. Straume 1995). In such case the exogamy will not be demonstrated so clear in the archaeological material.

The question arises what reasons – if any – may have encouraged Norwegians to sail so far east. One possible explanation may be the rich amber deposits on Samland Peninsula and western Lithuanian coast. This attractive raw material had led to the establishment of close, possibly direct, contacts of those areas with the Roman Empire (see J. Kolendo 1981) and may also have been attractive later for northern neighbours of the Balts. The hoard of amber beads from a Migration Period settlement site at Bo, Bredsätra sn. on Öland, (M. Beskow Sjöberg 1987: 282) seems to be a good example of such connections. On the other hand, this line of argumentation may be confirmed by the presence of amber beads in Norwegian graves of that time, for example, assemblages with spade-footed brooches at Kvassheim, Horr, Holmen, Hove and Lunde. There are also numerous other grave assemblages containing dozens of amber beads, e.g. at Kvassheim cemetery (G. Lillehammer 1996). One of the most spectacular appears to be grave from Gjerla in Vestfold, which produced above 100 amber beads (E. Straume 1987: 83–85).

2.4. Crossbow fibulae with an animal head on the foot. Types Sensburg/Mrągowo and Daumen/Tumiany

Introduction[1]

The fibulae in question feature a crossbow construction, a full catch-plate and an animal head on the foot (Pls. LII–LVIII). In some the foot and the bow are decorated with a relief ornament. Among them a group of specimens feature an imitation of the crossbow construction. The wide distribution of this ornament, curiously split between Scandinavia, Balt lands and Bavaria on the one hand and the Dneper basin on the other has been attracting the interest of scholars for some time. However, the subject was mostly only touched briefly and no attempt was made to collect all the finds.

N. Åberg was the first to present more extensively the question of the *"Fibeln mit schmalem Tierkopffuß"*, as he called them (N. Åberg 1919: 93–97, 143–146). His discussion covered almost exclusively Balt specimens from the Mazurian Lakeland and Samland (5 items). N. Åberg argued that their emergence had been the result of the impact made by *"Fibeln mit dreilappiger Kopfplatte und schmalem Tierkopffuß"* (N. Åberg 1919: Figs. 122–126) on crossbow brooches in Samland. Although the subject has revived as a result of recent studies typological development proposed by N. Åberg remains correct (N. Åberg 1919: Figs. 127, 130–131). An item from Mrągowo (former Sensburg) was regarded as the first stadium of development. Younger finds feature the relief ornament and the animal head both at the end of the foot and the bow, like the brooch from Yaroslavskoe (former Schlakalken), grave 25. It is dated to the mid 6th c. The culmination of the development of the fibulae in question may be illustrated by a rich decorated item from Tumiany (former Daumen) with an imitation of crossbow construction. A brooch from Grobina (N. Åberg 1919: Fig. 132) represents a transition between the Samland and Mazurian specimens mentioned above and simple Lithuanian fibulae with an imitation of animal heads on the foot, bow and chord (N. Åberg 1919: 142–146, Figs. 198–200). The latter may be datable as far as the Viking Age.

Detailed analysis of *"Prachtfibel"* from Grobina was undertaken by E.C.G. Oxenstierna (1940) who also discussed former East Prussian finds of brooches in question. He collected nine specimens. His proposition of their further subdivision into *"Armbrustfibeln mit reicher Ornamentik"* and *"Kragenfibeln"*[2] meaning, items with an imitation of crossbow construction was the first attempt to classify them. It is still valid.

A number of important points were made in his paper by E. Šturms (1950) who treating the fibulae as typical for Mazurian male graves. He referred to them as *"Armbrustfibeln mit germanischer Ornamentik"* in keeping with their decoration in Style I, listing only six finds of these fibulae (E. Šturms 1950: 20, Fig. 1, 22 endnote 14).

J. Werner argued against earlier hypotheses on a Mazurian or generally East Prussian origin of crossbow fibulae with a relief ornament and animal head (J. Werner 1970: 78–81). His argumentation has been confirmed by a mould find from Helgö as well as brooch finds from Öland and from

[1] The main thesis of this Chapter was presented at the conference in Palanga, Lithuania, April 1997, see A. Bitner-Wróblewska 2000b.

[2] But it does not mean brooches type Almgren 239.

a female grave in Bavaria. J. Werner turned our attention to the presence of itinerant artisans.

V. Kazakevičius introduced into the discussion new Lithuanian and Latvian finds of crossbow brooches with an animal head less stylised than the East Prussian ones (V. Kazakevičius 1983; 1993: 106–109). The great diversity of specimens (comp. items from graves 106 and 107 in Plinkaigalis) listed in his studies unaccompanied by detailed analysis limit his conclusions. V. Kazakevičius proposed a new hypothesis concerning the origin of fibulae in question looking for analogies among Gotland belt sets dated to the Migration Period (V. Kazakevičius 1983: 194–195). But later he revised this opinion (V. Kazakevičius 1993: 108–109).

A classification lacking sufficiently definite criteria recently put forward by V.I. Kulakov (1990) instead of ordering the material provoked chaos. A type (see his group 2. and 4.) includes both specimens with and without the relief ornament lumping together brooches with different construction (see group 3.). Some of the fibulae listed in the catalogue were not assigned to any type (see no 19, 36, 40, 41). To his credit the number of finds collected by V.I. Kulakov is impressive. However, besides crossbow brooches with an animal head he included such dissimilar ornaments as *Fibeln mit dreilappiger Kopfplatte* which are regarded as a distinct type (see group 1.). The question arises why all other relief fibulae with a semicircular or rectangular head and animal decoration were not listed. An unintelligible exception is an item from the Młoteczno hoard (V.I. Kulakov 1990: 204, Fig. 1). Last, but not least, is his unconvincing historical interpretation.

The origin of crossbow brooches with an animal head

N. Åberg's hypothesis concerning the origin of this group of fibulae has largely been continued by other scholars. He emphasised the role played by the *Fibeln mit dreilappiger Kopfplatte und schmalem Tierkopffuß* and their impact on crossbow brooches from Samland. However, this proposition is not entirely sound. The first reservation is chronological. Crossbow fibulae with a full catch-plate and long, narrow foot are treated as one of the indicators of Early Migration Period in the Balt lands (K. Godłowski 1974: Pl. VII; W. Nowakowski 1996: 15–54). Bow brooches (*Bügelfibeln*) including *Fibeln mit dreilappiger Kopfplatte* are typical for the Late Migration Period (J. Kowalski 1991; W. Nowakowski 1996: 53–54). Obviously there is no gap between these two phases and some artefacts may have continued in use longer while others may have appeared somewhat earlier. Still it seems that the synchronic development of the ornaments must have facilitated mutual influences much more than in case of only partially chronologically overlapping specimens.

There is also some doubt as to stylistic connections between crossbow brooches and *Bügelfibeln* proposed by N. Åberg. While the entirely dissimilar construction of the latter need not negate interconnection of the two fibulae types it does undermine it somewhat.

There is no easy solution to the question of the origin of crossbow brooches with an animal head. Their wide distribution suggests that one should give up looking for one homeland treating them instead from a wider perspective, in the context of far-flung interchange of ideas in the Baltic basin during the Migration Period. Such a hybrid as crossbow brooches with an animal head must have emerged as a result of the superimposition of influences. The fibulae in question have their typological source in crossbow specimens with a long narrow foot and full catch-plate (types Schönwarling/Skowarcz and Dollkeim/Kovrovo – see Chapter 2.2.). The latter, one of the most popular ornaments in the eastern Baltic basin, occur in concentrations primarily in Samland and Mazurian Lakeland as well as in western Lithuania, Gotland and Öland. At the same time such a distribution in the western Baltic basin and areas situated to west of it is noted in the case of cruciform brooches (J. Reichstein 1975). Except for a plate on the head with three knobs they also feature an animal head on the end of the foot.

It is conceivable that crossbow fibulae with an animal head emerged on the periphery of distribution of these two popular categories of artefacts (comp. U. Näsman 1984a: Map 12a) combining "eastern" construction with "western" animal decoration. It does not seem necessary to highlight the role of certain areas in their emergence. But on the other hand it is worth indicating territories which may have been a "meeting point" of cruciform and crossbow brooches, such as for instance, Öland, which produced three crossbow fibulae with animal head (N. Åberg 1923: 131, Figs. 234, 235). In contrast no such ornament is recorded on Gotland where cruciform brooches are not known either. This may not be an accident. If Öland–Samland links (comp. A. Bitner-Wróblewska 1992b: 32–34) played any role in the emergence of fibulae with animal head, it would be nothing strange that none of these are known from Gotland, which traditionally had closer connections with other Balt lands.

The classification of crossbow brooches with an animal head

As noted above the stylistic development of *Fibeln mit schmalem Tierkopffuß*, proposed by N. Åberg is still correct as is the subdivision presented by E. C. G. Oxenstierna. However, it cannot replace the classification of crossbow brooches with an animal head. Their great diversity calls for detailed analysis which could reveal their local differentiation as well as their "interregional" features. The classification proposed below includes the whole material, namely 53 fibulae. Nobody has collected and analysed so many finds.

The author would like to propose a simple, general criterion for ordering crossbow brooches with an animal head, namely the presence of the relief ornament. It seems that dividing fibulae in question into specimens with or without the relief ornament one may better grasp the interregional or local character of these ornaments. A further subdivision may be made in case it is necessary to point out any of these aspects.

Instead of a lengthy description used for designating the brooches in question the author proposes the name "Sensburg/Mrągowo" for specimens lacking the relief ornament and the name "Daumen/Tumiany"[3] for ones featuring such an ornament.

Sensburg/Mrągowo brooches and variants

A loose find from Mrągowo was selected for naming the type in keeping with its position in Åberg's typological scheme. The type Sensburg/Mrągowo (see Appendix J) is always made of bronze, features a crossbow construction, a short catch-plate and a realistic animal head at the end of the foot (Pl. LII). There are hemispherical or cylindrical knobs on the axis ends. Such classical specimens of the type in question are on record in the Balt lands, in the Bogaczewo Culture and Semigallian Flat Cemeteries Group as well as across the Baltic, on Öland and Bornholm (Fig. 15). A single, dispersed find is known from outside the area mentioned, namely from the Dneper basin. The latter need not be regarded as a curiosity when it is combined with a handful of Balt artefacts also found in the Dneper River basin (e.g. a spade-footed brooch, bow-curved strap end – A. Bitner-Wróblewska 1991a: 68–69; M. Kazanski 2000). All these finds testify to the existence of links between Balt lands and south-eastern Europe confirming the tantalising hypothesis on an offshoot of the *Galindai*, inhabitants of Mazurian Lakeland, who might have joined the Goths on their southward migration (W. Nowakowski 1989: 120–123, earlier literature ibid.).

Returning to type Sensburg/Mrągowo, it is worth noting the stylistic similarity between the fibula from Mrągowo and an item from an unknown site on Öland (Pl. LII, 1–2). The design of the animal head is very similar in both cases with well defined ribs marking the "mouth"

[3] The term „type Grobina" used lately by W. Nowakowski (1998: 127) does not seem best from methodological point of view. The item from Grobina represents the latest stage of the stylistic development of brooches in question.

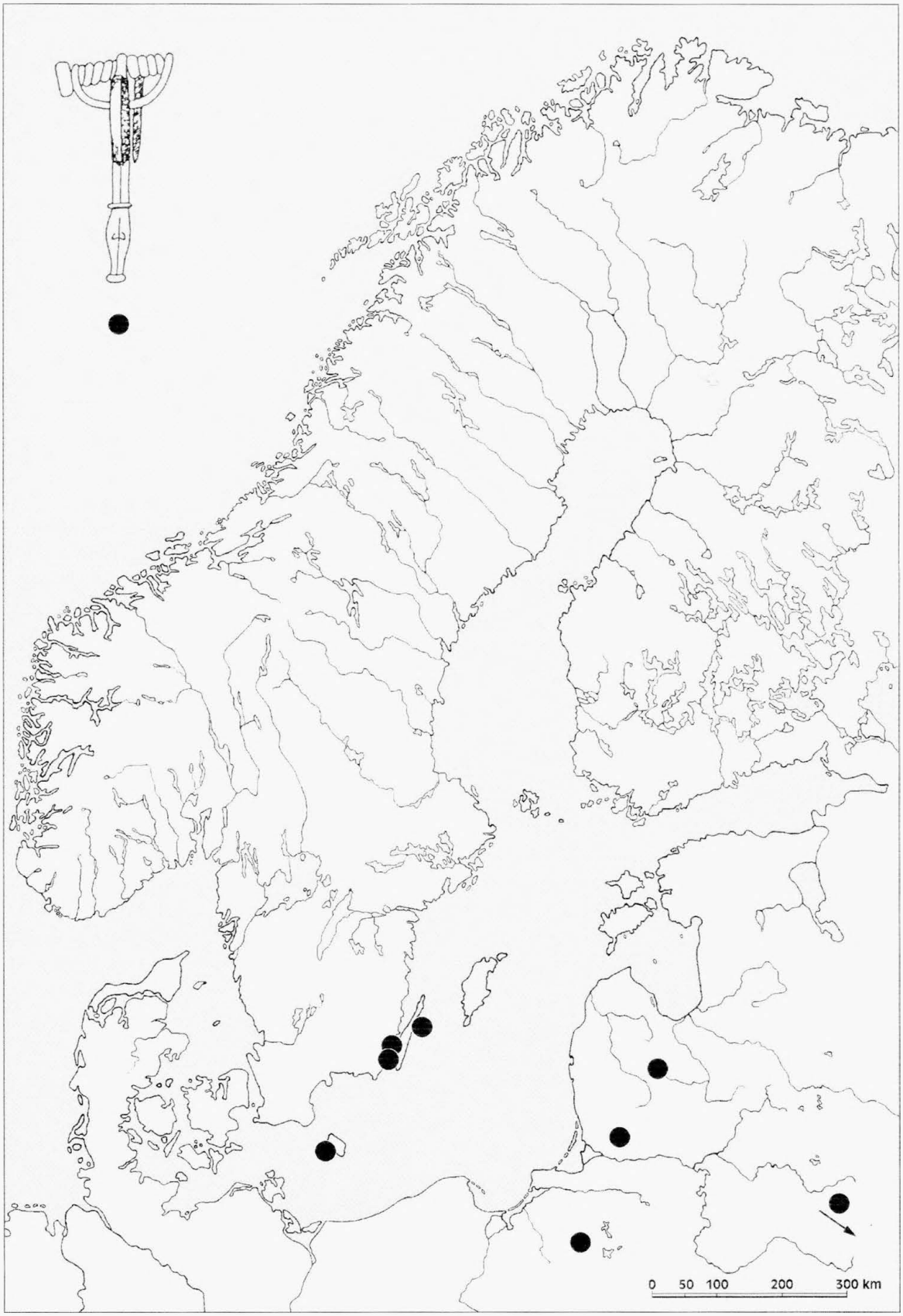

Fig. 15. Distribution of crossbow brooches type Sensburg/Mrągowo.

and "neck" of the animal head. However, one ought to recall that the only available drawing of the Mrągowo brooch is highly schematic[4].

An interesting pair of fibulae in question was produced by grave 2 at Levka, Bornholm (Pl. XXXIV, 3–4). They have a rectangular metope on the top of the bow decorated with a diagonal cross. Such metopes are rarely seen in type Sensburg/Mrągowo being characteristic for star-footed brooches from the eastern Baltic zone. It is possible that the latter inspired a local artisan from Bornholm[5]. Such "mixed" ornaments combining different influences seem to be a characteristic feature of local workshops on Bornholm. The deep transverse grooves seen on the bow of the fibulae from Levka may also have been inspired by the design of star-footed or Schönwarling/Skowarcz and Dollkeim/Kovrovo brooches.

It is worth bearing in mind the local character of type Sensburg/Mrągowo with several variants dispersed around Baltic basin (Fig. 16). The motif was spread over this area being rapidly modified to suit local tastes. Some imitations of type Sensburg/Mrągowo are even known in which the animal head on the foot is only slightly marked (Pl. LII, 6). Such specimens have been found on opposite borders of the West Lithuanian Group – three in the northern part, at Ošenieki, one in the southern part, in Jurgaičiai. This is generally the area of distribution of type Sensburg/Mrągowo, but imitation specimens are recorded in cemeteries where original items of the type in question have been not found.

Smørenge variant

This variant is recorded on Bornholm. It features a new pattern in the form of a rounded projection on the head extending beyond the spring (Pl. LII, 5). This is the most frequently repeated pattern among the crossbow brooches from this island being a cultural indicator of the Bornholm costume (comp. type Bornholm, Chapter 2.2.). The realistic animal head in the Smørenge variant has become elongated. The bow is not decorated.

Rubokai variant

Another local form, variant Rubokai, emerged in the Nemunas River basin, in the southern reaches of the West Lithuanian Group and in Central Lithuanian Group. Its special feature is a group of ribs, so-called "cockscomb" placed on the top of the bow (Pl. LII, 3–4). The animal head is shorter and more stylised than in case of other items of type Sensburg/Mrągowo. The full catch-plate is of the same length as the foot. Both the foot and the bow are ornamented with very deep transverse grooves as well as being decorated with stamping. There is also stamp ornamentation on the wide, polygonal-sectioned chord. The knobs of the axis are massive and richly decorated with engraving and stamps.

As noted above (see Chapter 2.2.) the so-called "cockscomb" became a feature of several crossbow brooches type Dollkeim/Kovrovo found in the same area. There are a few cemeteries – Rubokai, Vidgiriai, Plinkaigalis, Pašušvys – situated along the Nemunas River and its tributary Nevežis with Šušve. It must have been a local artisan (artisans?) travelling between the lower Nemunas area and central Lithuania. Outside the territory mentioned a brooch type Dollkeim/Kovrovo with a "cockscomb" is recorded at Pagrybis, Samogitian Flat Cemeteries Group, but the Pagrybis cemetery was also placed in the Nemunas River basin, at Akmenė River being with Jura River tributaries of Nemunas. An exception appears to be a brooch with an imitation of both the "cockscomb" and an animal head on the foot found at Ošenieki, in the northern region of the West Lithuanian Group.

The Letto-Lithuanian variant

Last, but not least is the Letto-Lithuanian variant. In contrast to N. Åberg (N. Åberg 1919: 97) its typological source appears to be the simple crossbow brooches with an animal head and without relief ornament rather that the *Prachtfibel* from Grobina. The Letto-Lithuanian variant occurs in

[4] This close similarity was confirmed when a brooch from Mrągowo/Sensburg was lately identified by the author among artefacts from Prussia Sammlung kept in Museum für Vor- und Frühgeschichte in Berlin. The author would like to thank very much Prof. W. Menghin for access to this collection.

[5] There is one brooch with star foot recorded on Bornholm (see Chapter 2.3. and Appendix G).

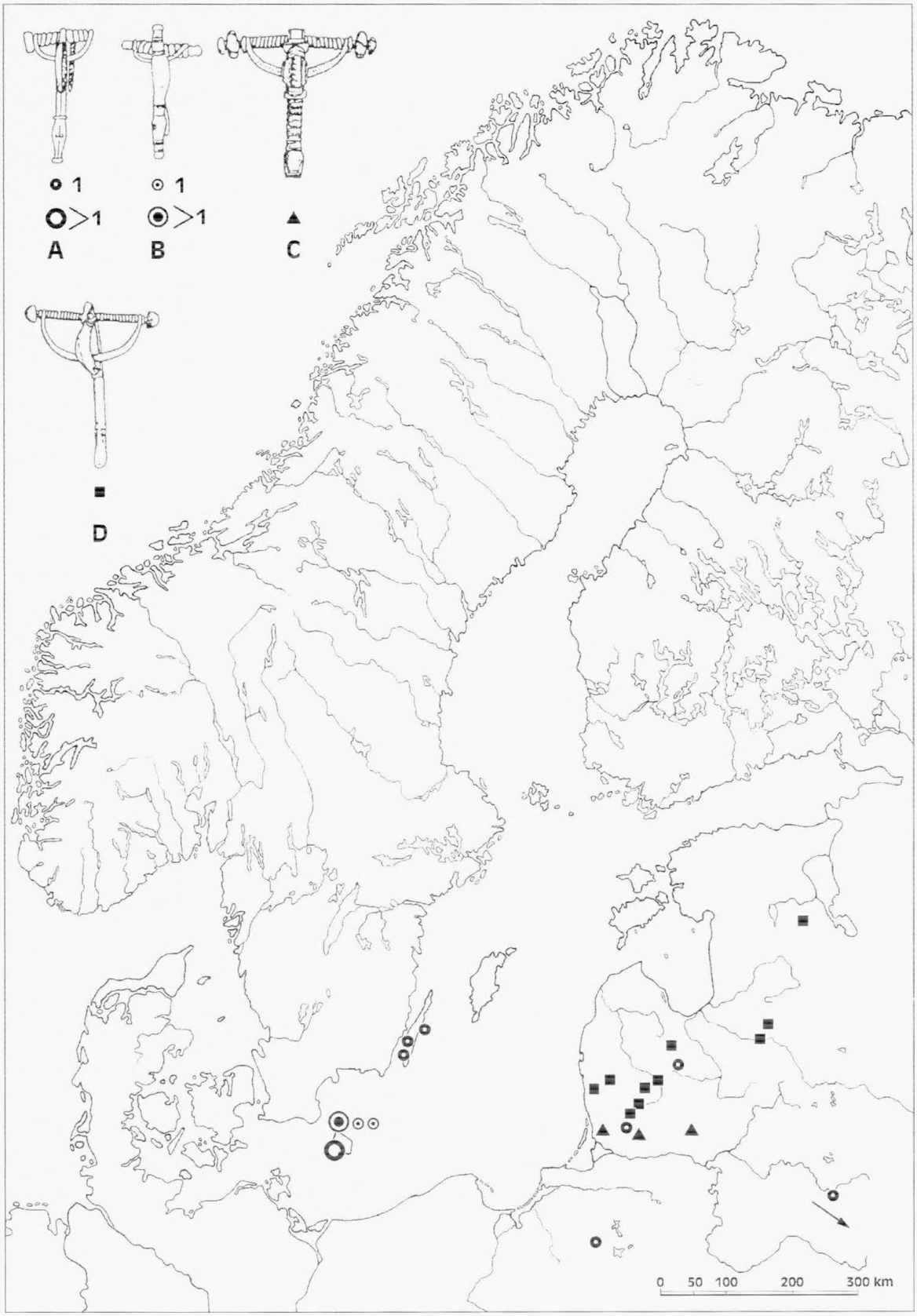

Fig. 16. Distribution of crossbow brooches type Sensburg/Mrągowo and its variants. A – type Sensburg/Mrągowo; B – Smørenge variant; C – Rubokai variant; D – Letto-Lithuanian variant.

western Lithuania and Latvia, i.e., in the Lower Nemunas and West Lithuanian Groups as well as Samogitian Flat Cemeteries Group and Semigallian Flat Cemeteries Group (Fig. 16). A number of isolated scattered finds are known from eastern Latvia, on the route along the Daugava River. There is also an item found outside these areas, in the territory of the Tarand Culture (Pikkjärve). Brooches of the Letto-Lithuanian variant feature a realistic animal head, with decoration not only on the foot but frequently also on the end of the bow (Pl. LIII). Sometimes, instead of the latter there is a big, trapeze-like metope on the head of the fibula (Pl. LIII, 1). Such a metope is one of typical Lithuanian and Latvian features seen in other brooches, e.g. items with a long foot (comp. Lithuanian variant of type Dollkeim/Kovrovo, Chapter 2.2.). Fibulae of the Letto-Lithuanian variant are markedly more massive and larger than their type Sensburg/Mrągowo counterparts. There is usually a long spring with massive hemispherical and spherical knobs on the end of the axis. The brooches in question tend to have a pronounced elongation of the animal head on the foot. The same feature is seen in the Smørenge variant discussed above. It may also be observed in cruciform fibulae, particularly Norwegian ones (comp. H. Shetelig 1906: Figs. 24–25). A good example of such similarities appears to be a Lithuanian crossbow brooch from Jauneikiai, grave 390 and a Norwegian cruciform specimen from Reve, Klepp, Jæren, Rogaland (H. Shetelig 1906: Fig. 86). The shape of their animal (duck's?) heads seems to be nearly identical. The differences relate to the way of marking the details of the animal head (engraving or relief ornament).

An interesting example of the Letto-Lithuanian variant appears to be the loose find from Pagrybis (Pl. LIII, 3). In this specimen the animal head was formed as the end of the foot but was soldered there as an independent motif. An imitation of such a decoration could be observed on another item from Pagrybis – a crossbow brooch from grave 36 (L. Vaitkunskienė 1995: 17, 120, Figs. 20, 169).

The Letto-Lithuanian variant is the only one from the type Sensburg/Mrągowo which underwent further stylistic development giving rise to brooches with considerably stylised animal heads situated on the end of the foot, the bow as well as the chord. Their spatial distribution covers the same areas of those mentioned above. They become a cultural indicator of Curonian dress in the 7th–8th c.c. (N. Åberg 1919: 143–146, Figs. 198–200; LAA 1978: 44, Map 30).

Daumen/Tumiany brooches

A group of crossbow brooches featuring an animal head and the relief ornament is the so-called type Daumen/Tumiany (see Appendix K). The cemetery of the Olsztyn Group at Tumiany produced four items of such fibulae which offer insight into the great diversity of type Daumen/Tumiany presenting all possible variations. The variation occurs in the size, decoration, presence of crossbow construction or its imitation and the level of stylisation of the animal head.

First, there is a silver gilt crossbow brooch from grave 150 at Tumiany (Pl. LIV, 2). Its proportions, like the length of the spring in relation to the size of fibula, are the same as those of other crossbow brooches so popular in Balt lands, namely types Schönwarling/Skowarcz and Dollkeim/Kovrovo. Their length is longer than the width. The spring of the specimen from Tumiany is very wide, with 16 coils. Hemispherical profiled knobs decorate the ends of the axis. There is a stylised indistinct animal head on the foot. It should be underlined that generally type Daumen/Tumiany brooches with an animal head motif are much more stylised than the specimen of type Sensburg/Mrągowo which may be viewed as one of the differences between them. The last but no means least characteristic of the discussed brooch from grave 150 is its rich relief ornament covering both the bow and the foot. Besides the transverse grooves there is animal decoration.

Similar features may be seen on a silver loose find from Tumiany. It differs from the specimen just discussed by its decoration featured only on the bow. There are very deep transverse grooves and a caterpillar-like ornament. An animal head on

the foot remains stylised. This seems to be associated with the "degeneration" of the type in question.

Brooches parallel in their design – proportions, construction and ornament – to specimens described above are recorded (Fig. 17), other than in the Olsztyn Group, in the Dollkeim/Kovrovo Culture (Osokino), West Lithuanian Group (Lazdininkai, grave 116; Griezes), the Lower Nemunas Group (Vidgiriai, grave 2 – Pl. LV, 1) and Central Lithuanian Group (Plinkaigalis, grave 106 – Pl. LVI, 2). All are made of silver or gilt silver. They have the crossbow construction. Their springs are wide (10–16 coils), but shorter than the length of the brooch. The catch-plate is as long as the foot. Variation occurs in the way of marking the animal head on the foot – from a few lines (Tumiany, loose find) to a complicated engraving design (Vidgiriai, grave 2). Relief ornament with spiral motifs becomes the main decoration of both the foot and the bow, besides the deep transverse groove and animal style as additional patterns. Interesting examples of a combination of these elements is represented by specimens from Griezes, Vidgiriai, grave 2 and Lazdininkai, grave 116. A specimen from the latter site differs from others by the presence of two animal heads placed both on the foot and on the head of the brooch.

Apart from specimens just described type Daumen/Tumiany includes a group of fibulae having different proportions. Their length is approximately the same as their width. The next two brooches from Tumiany may be a good example of such variation. Grave 38 produced a massive fibula in which the length and width are approximately the same (Pl. LVII, 1). There is an imitation of crossbow construction; the spring and the chord form a single unit. Very rich relief ornament covers the bow and the foot as well as the wide, flat chord of the fibula. Decoration includes spiral motifs and animal style; a decorated rib was formed along the bow and the foot. There are two stylised animal heads – on the end of the foot and the end of the bow. The large spherical knobs on the axis are richly decorated by engraving. The brooch found in grave 38 was made of bronze, which appears to be quite exceptional among type Daumen/Tumiany.

Last, but not least is a fibula, a loose find from Tumiany a silver gilt masterpiece (Pl. LIV, 1). Its length is equal to its width. The spring and a wide chord only imitate the crossbow construction. The animal head is situated both on the foot and on the head of the brooch. The relief ornament, more elaborate than in any of the items discussed above also covers the large knobs of the axis. It is exceptional for the animal style to combine a point-decorated ribs along the bow and the foot with a row of supine animal heads with a triangular front and simple oval eye. Each side of the bow is covered with two groups of three animal heads. Pairs of animal heads were placed on both sides of the foot. The wave and spiral motifs became the additional patterns.

Similarly richly decorated fibulae with approximate proportions occur (Fig. 17) in the Olsztyn Group (items described above, from Tumiany, Wyszembork), the Dollkeim/Kovrovo Culture (Yaroslavskoe, grave 25), Sudovian Culture (by Węgorzewo), West Lithuanian Group (Ģeistauti, grave 2 – Pl. XLI, 3; Grobina, Rucava), Lower Nemunas Group (by Sovetsk; Vidgiriai, grave 32), Semigallian Flat Cemeteries Group (Miklas Kalns). Another specimen was found in the area of Tarand Culture settlement, in north Latvia (Ošbirzes). Besides the Balt territory such massive brooches are recorded on Öland (Gråborg) and as far as Bavaria (Altenerding, grave 421 – Pl. LVIII, 1). A fragment of a casting mould was found at Helgö, central Sweden (J. Werner 1970: 79–81, Pl. 8,1). All the fibulae were decorated with a rich relief ornament including a variation of spiral and zigzag motifs, decorated ribs and last, but not least, elements of the animal style. However, in many cases the archaeological publications are not sufficient for analysing the decoration in detail[6]. There are animal heads placed both on the foot and on the head of the fibula.

[6] Comp. the way of publication of *Prachtfibel* from Tumiany (E. C. G. Oxenstierna 1940: 230, Figs. 18, 19) and brooches from Yaroslavskoe or Prudovka (N. Åberg 1919: 95–96, Fig. 130; E. C. G. Oxenstierna 1940: 238–240, Figs. 42, 45). It should be underlined that such publications remained the only source of information about these finds.

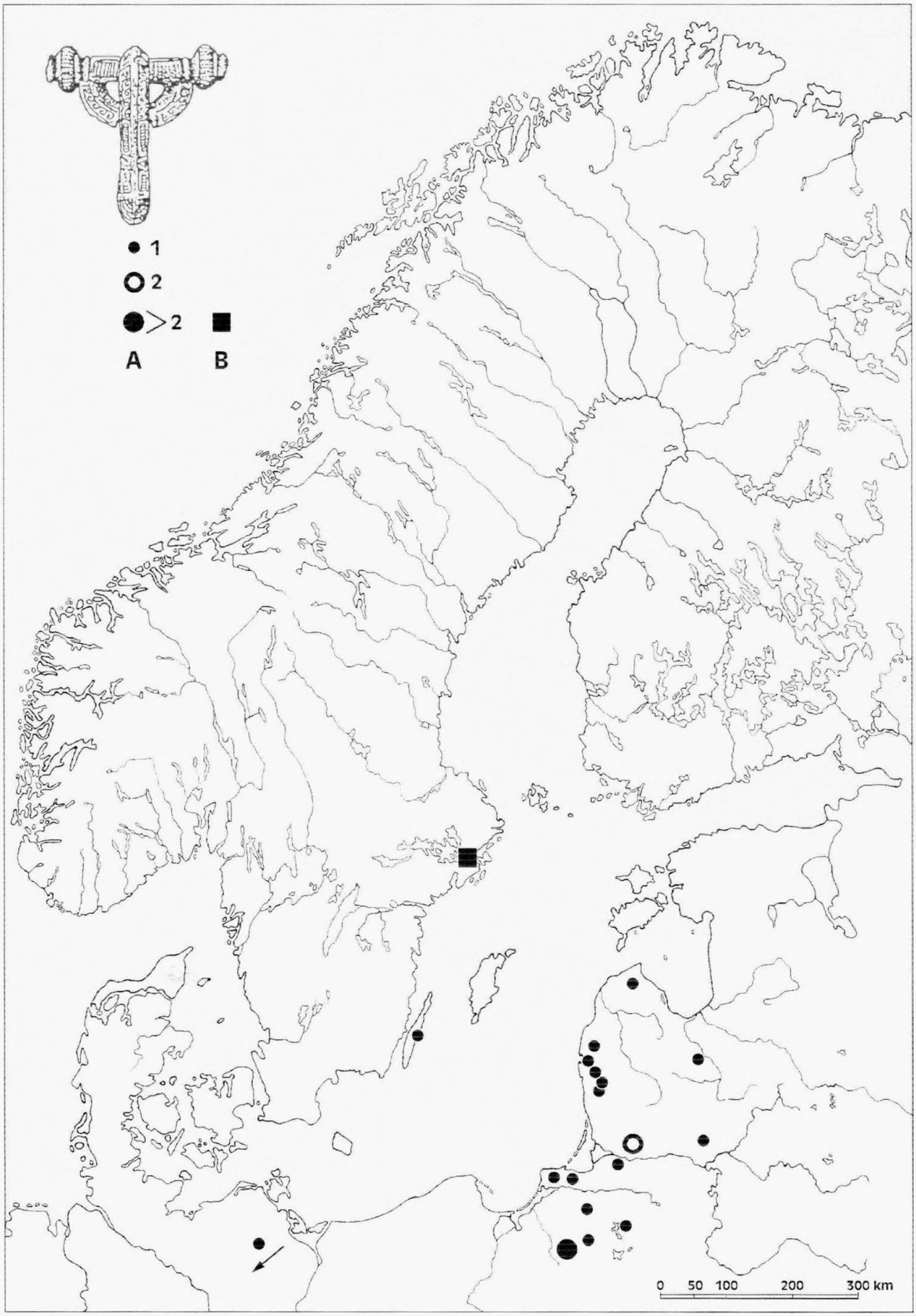

Fig. 17. Distribution of Daumen/Tumiany brooches. A – brooches type Daumen/Tumiany; B – casting mould of type Daumen/Tumiany.

The brooches in question either have a crossbow construction or its imitation. The chord of the latter specimens is very wide, adorned with a relief ornament. The large spherical knobs at the ends of the axis are usually decorated with deep engraving. An exception appears to be a fibula from Yaroslavskoe with rings placed on the ends of the axis. Hemispherical profiled knobs in an item found near Węgorzewo may be regarded as non typical. Brooches discussed here were mostly made of silver, gilt silver, gilt bronze or bronze with silver. Only a single bronze specimen is in evidence, e.g. Tumiany, grave 38, Wyszembork.

The masterpiece from Grobina requires a special analysis. In contrast to items mentioned above it is quite long more slender specimen with a crossbow construction. The spring and the knobs did not survive. The fibula is made of gilt bronze and decorated with glass. It features two animal heads placed at the ends of the bow and the foot. A very sharp relief ornament features 17 different motifs (E. C. G. Oxenstierna 1940: 219–233). Animal Style I has become a main pattern. The pairs of supine animals in profile (chameleons) were placed symmetrically on both sides of the brooch. In contrast to the decoration on the bow and the foot the one on the chord is covered by flat relief ornament with geometrical motifs. The ends of the chord are ornamented with two realistic wolves' heads. The fibula from Grobina represents a unique composition of gilt, relief and glass decoration. There were 18 blue glass pearls originally placed as animals' eyes along the bow and the foot; now only four of them survive. The custom of decorating different ornaments with blue glass is characteristic for the West Lithuanian Group (L. Vaitkunskienė 1981: Figs. XXXVII, XLI, XLV), but this fashion has its much earlier stylistic sources in the Germanic environment (comp. C. von Carnap-Bornheim 2000). The Grobina brooch continued in use for quite a long time[7] as confirmed by its repair. The original chord was replaced by the one described above fastened to the bow with rivets. According to chemical analysis this new chord was made of a different copper alloy than the bow (E. C. G. Oxenstierna 1940: 247). This would probably explain why the ornament on the chord differs so much from the rest of the fibula. But it should be stressed that the second artisan had tried to retain the character of the brooch. E. C. G. Oxenstierna argued that both artisans had arrived from Scandinavia (E. C. G. Oxenstierna 1940: 247–248). The first probably came from western Scandinavia from workshops around the Kattegat as suggested by stylistic analogies among the relief fibulae from Denmark and Norway (E. C. G. Oxenstierna 1940: 222–233).

Last, but not least is the imitation of type Daumen/Tumiany found at Jauneikiai, grave 466, on territory of the Semigallian Flat Cemeteries Group. The proportions of this brooch are the same as in the massive fibulae type Daumen/Tumiany. The specimen in question has a crossbow construction with large melon-shaped knobs on the axis. The wide chord is undecorated. There is no relief ornament on the bow or the foot. Deep, transverse grooves cover both the foot and the bow placed on both sides of a rib running along the fibula. A realistically rendered animal head featured on the end of the foot. Apart from the brooch in question the Jauneikiai cemetery produced an item of the Letto-Lithuanian variant of the type Sensburg/Mrągowo.

Returning to type Daumen/Tumiany it should be underlined that it is characterised by substantial internal differentiation – in size, proportions, presence of crossbow construction or its imitation and decoration – but it is not possible to establish any further subdivision except for the remark made earlier regarding the slender and more massive items. It is also difficult to point out any local characteristics as in the case of Sensburg/Mrągowo brooches. Just the opposite, the variations among Daumen/Tumiany brooches are spread all over the area of their distribution. An important feature of the type in question appears to be the presence of Scandinavian Style I. This corresponds to the strong cultural impact of Scandinavia made on the European mainland in

[7] E. C. G. Oxenstierna suggested that it may have been used even over a century according to the stylistic analysis of the "old" and "new" elements of the brooch in question (E. C. G. Oxenstierna 1940: 244–248).

the 6th c. (G. Haseloff 1981: 285–287). But in contrast to other territories the Balt lands produced the mixed ornament combining Scandinavian and local features.

Chronology

The chronological position of crossbow brooches with an animal head, i.e., the types Sensburg/Mrągowo and Daumen/Tumiany is not easily defined. Some of these specimens are loose finds, others occurred in assemblages with artefacts lacking the value of indicators of any phase.

The brooches in question have their typological source in crossbow fibulae with a long foot (type Schönwarling/Skowarcz and its developments). The latter, as was mentioned above, are dated to the Early Migration Period in the Balt lands (see Chapter 2.2.). The emergence of the crossbow fibulae with animal head must be placed during that time.

Among type Sensburg/Mrągowo practically only the well-known grave 2 at Levka (Pl. XXXIV), on Bornholm may be useful for chronological analysis. Two brooches with an animal head are associated with the local variant of type Schönwarling/Skowarcz, namely type Bornholm (see Chapter 2.2.) which confirms the above remark. Other artefacts from this grave such as pins and an annular brooch are also known on Bornholm in the context of Early Germanic Iron Age (L. Jørgensen 1990: 25–26).

A brooch of the Rubokai variant from Plinkaigalis, grave 107 was dated to the end of the 5th and the beginning of the 6th c. (V. Kazakevičius 1993: 107). Fibulae of the Letto-Lithuanian variant are assignable to the 5th – 6th cc. (V. Kazakevičius 1993: 107–108; A. Tautavičius 1996: 201–204). They are associated with local ornaments (neck-rings fastened with hook and loop), local tools (semiscythes) and weapons (battle knives, battle axes), e.g. Jauneikiai, grave 390; Jurgaičiai, grave 22.

Type Daumen/Tumiany seems to be in a slightly later-looking context than type Sensburg/Mrągowo. Close assemblages which could be analysed consist almost exclusively of specimens typical for phase E, Late Migration Period. An exception appears to be Vidgiriai, grave 2 (Pl. LV), which produced type Dollkeim/Kovrovo brooches, although local elements of its inventory (neck-ring, tools, weapons) might be assigned to Late Migration Period. Other assemblages with type Daumen/Tumiany brooches produced only finds dated to Late Migration Period (Pls. XLI, LIV, LVII). There are buckles with a cross at the spike base, *Kreuzdornschnallen* (Tumiany, grave 150; Yaroslavskoe, grave 25), lancet-like strap ends, *lanzettförmige Riemenzungen* (Tumiany, grave 38), late variant of spade-footed brooches type IIIB (Ģeistauti, grave 2) as well as twisted necklaces (Prudovka, grave VI).

The chronology of the Balt specimens type Daumen/Tumiany is confirmed by the Bavarian grave at Altenerding (Pl. LVIII) dated by J. Werner to the first half of the 6th c. (J. Werner 1970: 78). The latest study of the chronology of another brooch found in this grave, namely type Ozingell makes it possible to push back the dating of this assemblage even to the end of 5th or the very beginning of the 6th c. (M. Schulze-Dörrlamm 1986: 620).

Conclusions

The area between the zones of distribution of two popular artefacts from the Migration Period, namely cruciform brooches in the west and crossbow fibulae with a long foot in the east, saw the rise of a quite rare ornament, hybrid – a crossbow brooch with animal head. The motif spread rapidly around the Baltic Sea flourishing in Balt lands. The presence of direct, lively interchange among workshops on both sides of the Baltic Sea may be confirmed by the adaptation of the Scandinavian Style I in the Balt environment.

In contrast to earlier studies on crossbow brooches with an animal head, the classification proposed here makes it possible to follow the local modification of the fibulae as well as their "interregional" features. Specimens without the relief ornament, type Sensburg/Mrągowo, were

made exclusively of bronze. Items decorated with that ornament, type Daumen/Tumiany, were mostly made of silver, gilt silver, gilt bronze, rarely of bronze. The type appears to have become an unusual ornament, a symbol of special position of its owner. This is particularly evident in the case of *Prachtfibeln* of this type, richly decorated masterpieces which may be regarded as symbols of prestige. They are recorded in the Mazurian Lakeland, Samland, the lower Nemunas area, western Lithuania and Latvia, Öland and even Bavaria. Such interregional distribution, crossing the ethnic borders, confirms its position as well as offers insight into different aspects of far-reaching contacts between élites.

A good example of intermarriage appears to be Altenerding, grave 421 (Pl. LVIII). This female grave contained a number of Scandinavian ornaments such as a pair of pins, widespread in Scandinavia (comp. B. Nerman 1935: 6, 70–71; K. Høilund Nielsen 1987: 78) and a bronze necklace with a thickened central section known only from Gotland and Öland (B. Nerman 1935: 71–74). A woman buried in Bavaria had worn a pair of crossbow fibulae, one with an animal head type Daumen/Tumiany and another of the type Ozingell, according to M. Schulze-Dörrlamm's classification (M. Schulze-Dörrlamm 1986: 619–620). The latter is recorded only on Öland (Sätra – N. Åberg 1923: 128, Fig. 220), England (Ozingell – H. Shetelig 1911: 73, Fig. 44), Norway (Issjoen – H. Shetelig 1911: 73, Fig. 45) and Thüringen (Mülhausen, grave 2 – G. Behm-Blancke 1959: 242, Pl. 39, 2a). According to the analysis made by M. Schulze-Dörrlamm the shape of the bow of the Bavarian item suggests its origin from Scandinavian workshops. The Scandinavian character of the grave inventory from Altenerding is also confirmed by the dress set of pairs of brooches and pins.

The fragment of a casting mould found at Helgö, central Sweden, confirms the role of itinerant artisans in the transmission of masterpieces of the type Daumen/Tumiany. In contrast to such interregional character of the latter, type Sensburg/Mrągowo gave rise to local variations. Some of them were very hermetic as the Smørenge variant on Bornholm or variant Rubokai produced along the Nemunas River and its tributaries. The others, as the Letto-Lithuanian variant were spread wider both in space, reaching as far as middle Daugava River basin or eastern Estonia, and in time, evolving into late Curonian ornaments with considerably stylised animal heads.

As far as one may conclude on the basis of a handful of graves assemblages it appears that crossbow brooches with an animal head became an indicator of male costume but this applies only to the Balt environment (e.g. Plinkaigalis, grave 106 – Pl. LVI, grave 107; Vidgiriai, grave 2 – Pl. LV; Çeistauti, grave 2 – Pl. XLI). In Scandinavia such fibulae were a female ornament as shown by the Levka grave on Bornholm (Pl. XXXIV) or the grave of a Scandinavian lady married in Bavaria (Pl. LVIII).

3. The Sösdala horizon and correlation of Balt-Scandinavian chronology

The Sösdala horizon

In any attempt at synchronising the chronology of different areas it is important to identify some phenomenon linking them. To all appearances, our purpose ought to be served very well by the so-called Sösdala-Untersiebenbrunn style (J. E. Forssander 1937; H. Geisslinger 1961; R. Koch 1965; E. Keller 1967; J. Tejral 1973) which during Early Migration Period was widespread in the north, central and south-eastern Europe. For this reason the Scandinavian Sösdala style has been used recurrently as a main tool for correlating the chronology of the Balt lands and Scandinavia (K. Godłowski 1970; 1974; W. Nowakowski 1996). But such an exercise may not be sound if applied to incompatible phenomena. On the one hand there is a horizon of specific artefacts, on the other, a largely undefined ornamental style (see Chapter 1.).

The Sösdala style was distinguished by J. E. Forssander (1937) on the basis of a find made at Sösdala in Scania. The deposit consisted of *ca* 280 silver, gilt silver and bronze artefacts, including elements of at least two horse harnesses and five saddles as well as one spearhead. Among other finds featured several different strap mounts, tongue-shaped strap ends, strap distributors, a pelta-shaped pendant, buckles with an oval frame and triangular ferrule (J. E. Forssander 1937: Figs. 1–3). These categories of artefacts were decorated with an elaborate all over stamped ornament, and to a lesser extent by low chip-carving, niello and silver inlay (J. E. Forssander 1937: 11). Five strap mountings and pendants had an ornament of animal head representations in profile along the edges or on their terminals. Very similar design is seen on finds from Fulltofta, Scania (R. Norberg 1931: 105–108, Figs. 2–3) and Vennebo, Västergotland (B. Salin 1904: Figs. 362, 372; J. E. Forssander 1937: 11–12). Both these finds included silver, bronze or bronze with silver inlay elements of horse harnesses and saddles. They also featured stamp-decorated strap mounts and pelta-shaped pendants. Sheet type Eidsten-Mejlby fibulae represent the same style of decoration (J. E. Forssander 1937: 12, Fig. 4, 1–3). They are adorned with an elaborate stamped ornamentation covering the rectangular head, the bow and the foot; niello and the motif of animals in profile on the edge of the foot were an additional decoration.

According to Forssander the Sösdala style is identified first of all with the decoration of the artefacts in the Sösdala find as well as that seen on the silver-sheet Eidsten-Mejlby fibulae. This definition has been regarded as excessively broad (J. N. Nielsen, L. Bender Jørgensen, E. Fabech & E. Munksgaard 1985: 84–85). The weakness of the basis of Forssander's definition justifies this view. J. E. Forssander presented only a few pictures of the Sösdala find accompanied by a very general description. This apparently is not enough if a group of artefacts is to serve as a basis for distinguishing a new style. It is worth stressing that to this day the Sösdala find has yet to be published comprehensively. Until then the definition of the Sösdala style will continue to be excessively broad and hazy. For instance, in H. Norling-Christensen's (1949) opinion the Sösdala style seems to be synonymous with stamped decoration. The wide distribution of stamped decoration both in time and space (see K. Andersson 1991:

222–227, Figs. 13–15) makes such a definition questionable.

O. Voss (1955: 171–174) followed Forssander's opinion naming as principal elements of Sösdala style stamped decoration, the niello pattern and low chip-carved ornament. He only added some information about the stamped ornament being usually geometric and placed along the edges forming an outline of a given object. He distinguished the Nydam style and demonstrated that at a certain time both styles were contemporary (O. Voss 1955: 174–182).

U. Lund Hansen (1970: 86–97) tried to establish a more specific definition of Sösdala style in relation to the number of stamps. According to Forssander's opinion she paid substantial attention to the presence of animals heads in profile in relation to the number of stamps as a significant element to distinguish and define Sösdala style (U. Lund Hansen 1970: 82–86). She based on the Kvarmløse find, which contained two silver-sheet brooches with animals in profile and rich stamp decoration (U. Lund Hansen 1970: Figs. 1–2, 8–13). U. Lund Hansen collected all Scandinavian silver-sheet fibulae with animals in profile and compared them to other sheet brooches lacking that motif (U. Lund Hansen 1970: 87, Fig. 15). The latter group feature from 1 to 4 different types of stamps as compared to the 6 to 12 types seen on the former.

B. Magnus (1975) adopted the general definition of Sösdala style proposed by Forssander. In the course of her studies of the Krosshaug grave she demonstrated the presence of stamp ornamentation on types of artefacts other than the ones already mentioned here namely, shield-like pendants and cruciform brooches (B. Magnus 1975: 47–78, 123–134). Her conclusion was that the same character of style and ornaments used previously in decorating prestige goods such as precious jewellery was later adopted by local craftsmen for ornamenting other groups of metal objects and pottery.

The discussion concerning the definition of the Sösdala style has been continued by J. N. Nielsen who argued against U. Lund Hansen's proposal basing on a cemetery at Sejlflod, north Jutland (J. N. Nielsen, L. Bender Jørgensen, E. Fabech & E. Munksgaard 1985: 81–91; J. N. Nielsen 2000). He collected stamp-ornamented artefacts such as sheet fibulae, cruciform brooches, shield-like and pelta-shaped pendants, knife mountings encountered in graves dated to Late Roman Period and Early Germanic Iron Age. Although his attempt to apply a numerical limit of different stamps as an indicator of Sösdala style failed he did note a substantial increase in the number of stamp-ornamented specimens and in the number of stamps (J. N. Nielsen, L. Bender Jørgensen, E. Fabech & E. Munksgaard 1985: Fig. 21). Profiles of animal heads, another criterion used by U. Lund Hansen, may only serve as a basis for dating sheet fibulae and pelta-shaped pendants, but not as a style indicator.

This briefly presented discussion of Sösdala style shows how difficult it is to establish a clear enough definition, especially following the development of some decoration motifs. With the situation at its present stage the style is practically useless both as a more precise chronological indicator or as a tool for synchronising different areas. A solution to this problem may be to combine the Sösdala style to a higher extent with concrete archaeological material. Besides the existing term "Sösdala style" the author proposes to establish another term – "Sösdala horizon" designating a horizon of certain artefacts studied in connection with their context. J. E. Forssander (1937) and U. Lund Hansen (1970) have already tried to distinguish such groups of specimens based on the Sösdala find and silver-sheet type Kvarmløse-Mejlby brooches. The author would like to develop their idea further.

Several types of artefacts may be described as belonging to Sösdala horizon such as various strap mountings of horse harnesses, pelta-shaped pendants, sheet fibulae, shield-like and biconical pendants. All of them feature an elaborate usually all over stamped ornament.

Ceremonial horse harnesses

Among elements of horse trappings there are strap mountings, pendants, strap ends, strap distributors and buckles. The Sösdala find

Fig. 18. Sösdala horizon. Distribution of ceremonial horse harnesses.

contains an especially rich assortment of these items. It is worth noting that all of them are made of gilt silver and belong to ceremonial horse harnesses (see list below). There are at least 30 rectangular strap mountings with a stamp-ornamented surface the pattern placed in lines along the edges and in the middle of the object. The rows of multiconcentric circles are placed centrally while a combination of filled triangles, points and semicircles decorated the edges. The strap mountings are associated with 2 narrow tongue-shaped strap ends and 2 trapeze-like strap mounts fitted with a ring on the end with the same stamp ornament. Five buckles with a thickened oval frame and triangular ferrule are decorated with the stamped ornament and low chip-carving. The design was placed along the edges and filled the triangle in the middle. In a single case the ornament, including the star stamp among other motifs covers the surface of the buckle. Three cross-like strap distributors, besides stamping, are also decorated with niello. A unique group of horse trappings from Sösdala is formed by strap mountings, distributors or pendants with animals heads in profile placed along the edges or on the terminal. In addition they are decorated along the edges with low chip-carving and stamps with the former type prevailing. The same ornament is seen on a pelta-shaped pendant with animal heads in profile. The ferrule of this pendant features a star stamp.

The Sösdala find is traditionally connected with other Swedish finds as Fulltofta, Scania and Vennebo, Västergotland. The main subject raised in the most recent studies is their function and character in comparison with other votive deposits. All these finds were deposited on dry land and may represent cemetery sacrifices rather than "war-booty offerings" (Ch. Fabech 1991a; 1991b). Less attention has been paid to the comparison of their contents. Although Fulltofta and Vennebo finds contain elements of horse harnesses and saddles, there are only single decorated artefacts, which could be compared with the numerous specimens recorded in Sösdala. There is actually only one category of artefacts, namely pelta-shaped pendants. The Fulltofta find featured two such pendants made of bronze with silver inlay, one in a fragment. A single pelta-shaped pendant of bronze with a plate of silver is known from Vennebo. All these specimens are richly decorated by stamping. Pelta-shaped pendants will be discussed separately below together with other finds, which could not be connected with horse harness.

The author suggests therefore that the Sösdala horizon includes elaborate horse trappings made of silver, gilt silver or bronze with silver inlay featuring rich stamp decoration. They are recorded in southern Scandinavia, in Scania and western Sweden (Fig. 18). Their relative chronology may be based on pelta-shaped pendants.

Ceremonial horse harnesses:

Fulltofta, Fulltofta, Scania, Sweden – R. Norberg 1931: 105–108, Figs. 2–3; Ch. Fabech 1991a: 126 – 128, Fig. 4.

Sösdala, Mejlby, Scania, Sweden – LUHM 25570; see J. E. Forssander 1937: Figs. 1 – 3; Ch. Fabech 1991a: 123–126, Figs. 1a–c.

Vennebo, Roasjö, Västergotland, Sweden – B. Salin 1904: Figs. 362, 372; Ch. Fabech 1991a: 128, Figs. 5a–b.

Pelta-shaped pendants

Scandinavian pelta-shaped pendants with rich stamp decoration may be regarded as the next element of the Sösdala horizon (see list below). The specimens from Sösdala, Fulltofta and Vennebo belong to the ceremonial horse harnesses found there. Rich stamp decoration covers the surface of these pendants. Multiconcentric circles and semicircles as well as star stamps became the main motifs. The stamp ornament is associated with low chip-carving which prevails on the pelta-shaped pendant from Sösdala. All of these specimens have terminals in the shape of an animal head.

Four pelta-shaped pendants were found in graves DI and IZ at Sejlflod, northern Jutland. All of them are silver and gilded. They feature stamp decoration along the edges and centrally. In the case of pendants from grave IZ the animal heads in profile are stylised whereas typically they tend to be quite realistic, often birds' heads. The context of the Sejlflod pendants does not suggest any connection with horse trappings. They were found in women's graves and may have been necklace elements. This is substantiated by the Bosau find in Schleswig where two pelta-shaped pendants

associated with two shield-like pendants and amber beads were found *in situ* in an inhumation grave (W. Gebers & H. Hinz 1977: 25, Fig. 12 a, b). The gilt silver pelta-shaped pendants from Bosau are exclusively adorned with an elaborate motif of stamped multiconcentric circles, semicircles, triangles and rectangular points. The ornament forms the outlines of the object and the outlines of its central part similarly as in Sejlflod finds. The way of terminating Bosau and Sejlflod pendants is also very similar in design. All these common patterns indicate close links between workshops or even suggest that the artefacts in question were produced in one workshop.

The gilt silver pelta-shaped pendant from the Høstentorp[1] hoard is very similar in its stamp decoration to specimens noted above. Like them, it may also have been an element of a necklace as suggested by its destroyed upper part where the rivet was placed.

The group of precious metal stamp-decorated pelta-shaped pendants may be supplemented by two silver specimens from Veien, south-eastern Norway. Beside an elaborate stamped decoration including circles, semicircles and triangles they are adorned with animal representations or geometric motifs cast separately and soldered or riveted to the central section of the pendant. In addition, the pendants have anthropomorphic motifs on their terminals. They are an element of sword mountings. The same character is revealed by pelta-shaped elements of sword-sheath featuring animal heads in profile found recently in the Nydam bog. Despite differences in their function pelta-shaped pendants from Veien and Nydam apparently represent the same stylistic group as items mentioned in the preceding section.

A simplified example of a pelta-shaped pendant is a find from Finnestorp, Västergotland, made of bronze with silver inlay. It may be regarded as an imitation of pelta-shaped forms. The "arms" of this pendant are shorter and there are no animal heads in profile. But the rich stamp ornament is similar in design, with a star motif placed centrally as in the nearby Vennebo find. Pendants found in south Norwegian graves at Birkeland and Skreros represent a further simplification of the pelta-shaped form both in their material and stamp decoration as well as shape. They were made of bronze. The only stamped motifs include circles or points. Pelta-shaped pendants from both graves belong to bronze chains; the chain from Birkeland consisted of at least 18 pendants (16 preserved), the chain from Skreros – of at least 9 pendants (6 preserved). Both chains appear to have been produced in the same workshop.

The list of pelta-shaped pendants recorded by the author includes only specimens with stamp decoration, either developed forms or simplified ones[2]. They are usually valuable items made of gilt silver, silver or bronze with silver inlay but they also inspired the local craftsman to make bronze imitations. Beyond the scope of our interest are gold pelta- or lunula-shaped pendants[3] decorated with filigree and granulation which represent an entirely different stylistic tradition connected with south-eastern European one and Late Roman Period (see J. E. Forssander 1937; U. Hagberg 1957).

Stamp-decorated pelta-shaped pendants concentrate mainly in south Scandinavia (Fig. 19), in Scania, south-western Sweden, south and south-eastern Norway as well as Sjælland and northern Jutland. The find from Schleswig, north Germany, may be treated, to a certain degree, as belonging to the same region. Apart from this concentration, an isolated specimen turned up in a grave at Jakuszowice, south Poland (N. Åberg 1936: 271, Pl. III, 20; S. Nosek 1959; K. Godłowski 1995). This splendid chieftain's grave had been regarded as Hunnic but this view was questioned recently (K. Godłowski 1995: 155–157). Apart from elements associated with nomadic culture it included specimens characteristic for interregional

[1] W. Gebers and H. Hinz (1977: 24) mentioned six pelta-shaped pendants from the Høstentorp hoard when in fact there was only one such specimen, in six fragments (comp. O. Voss 1955: 187).

[2] Such division follows, to some extent, from the classification proposed by B. Svoboda (1953) who distinguished type I, called Zakrzów/Sakrau type already by J. E. Forssander (1937: 18), and lunula-like type II, named Finnestorp type by U. Hagberg (1957: 112).

[3] See Scandinavian examples of such ornaments: Kvarmløse, Sjælland (U. Lund Hansen 1970: 66, Fig. 3–4); Tåstrup, Sjælland (O. Voss 1955: 187); Visby, Gotland (B. Nerman 1935: Textfig. 134).

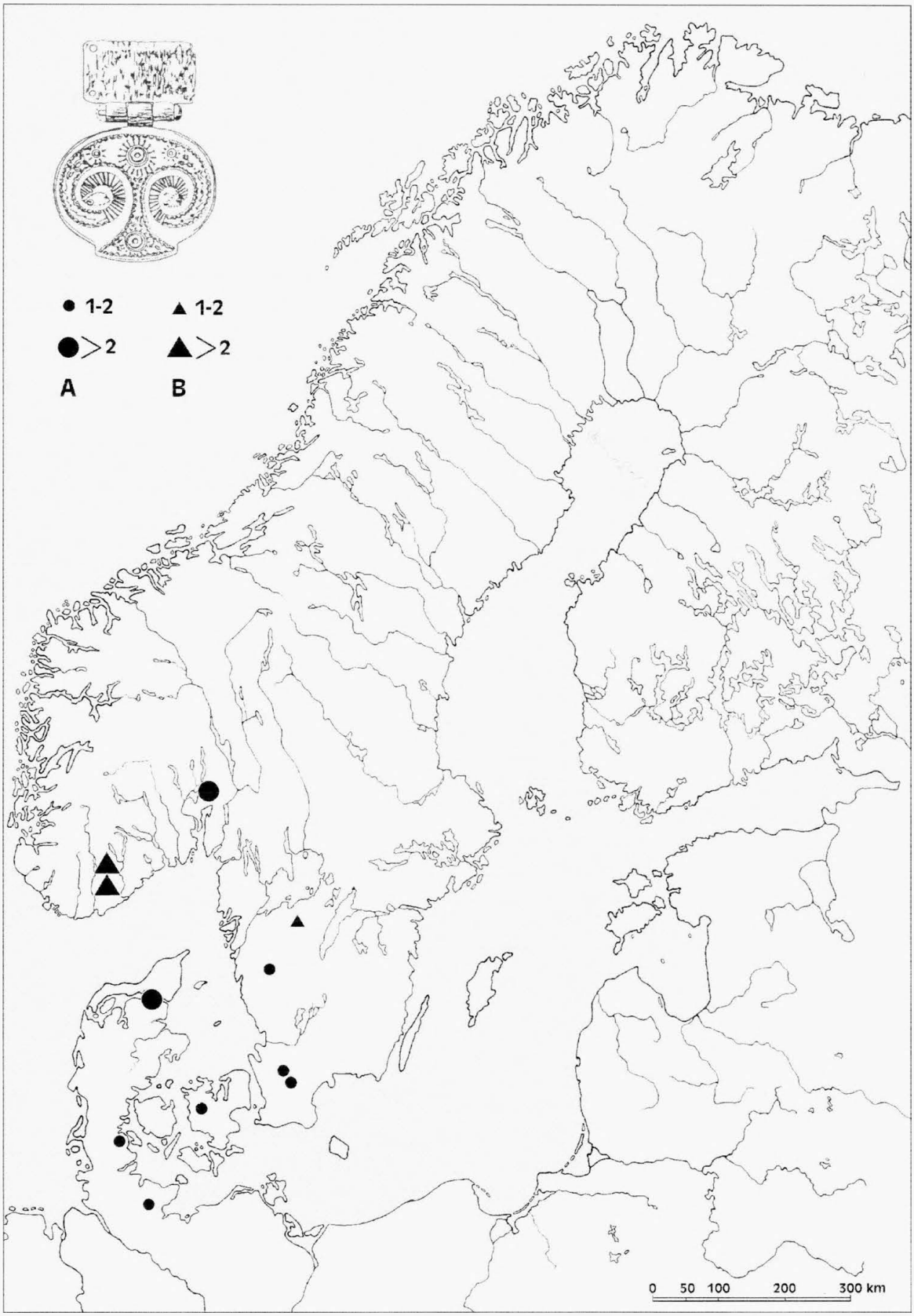

Fig. 19. Sösdala horizon. Distribution of pelta-shaped pendants. A – rich decorated specimens; B – simplified specimens.

Germanic culture. Among the latter featured the gilt silver pelta-shaped find resembling closely Scandinavian specimens. Its shape, with animal heads in profile, and rich stamp decoration are both very similar to specimens presented above. The pendant was an element of a ceremonial horse harness. The isolated find from Jakuszowice, a proof of contacts among élite, must be an exception to the rule and pelta-shaped pendants with stamp decoration may be regarded as the south Scandinavian form of the Sösdala horizon.

They are generally datable to Early Germanic Iron Age[4], occurring in assemblages with cruciform brooches (Sejlflod, graves DI, IZ; Veien; Birkeland; Bosau). Such chronology is confirmed by grave DI in Sejlflod where cruciform brooches were associated with a silver-sheet fibula with animal in profile. The earliest assemblage appears to be Veien, dated by J. Reichstein to his phase C_3/D_1 (J. Reichstein 1975: 101, 116). In absolute chronology this corresponds to the second half of the 4th and beginning of the 5th c. (J. Reichstein 1975: 108). But according to J. Bemmann and G. Hahne (J. Bemmann & G. Hahne 1994: 316–320, 518) who connect the weapon from this grave with the Kvamme group the assemblage may be dated between 400 AD until the mid-5th c.

The absolute dating of pelta-shaped pendants may be supported by the Høstentorp hoard which contained eight coins. Six of them were identified as follows (N. Breitenstein 1946: 22–24): one Constantius II (337–361), four Valens (364–378), one uncertain, described as Gratian (375–383) or Honorius (395–423). The chronology of the Høstentorp find corresponds with the dating by J. Bemmann mentioned earlier. Obviously, it is worth noting that the hoard must have been collected over a certain period.

Pelta-shaped pendants

SWEDEN:

Finnestorp, Larv, Västergotland – U. Hagberg 1957: 112–113, Fig. 3.

Fulltofta (2 specimens), Fulltofta, Scania – LUHM 14080; see R. Norberg 1931: 105, Fig. 3.

Sösdala, Mejlby, Scania – LUHM 25570; see R. Norberg 1931: 107, Fig. 9; J. E. Forssander 1937: Fig. 3.

Vennebo, Roasjö, Västergotland – B. Salin 1904: Fig. 362.

DENMARK:

Høstentorp, Frerslev, Ringsted – O. Voss 1955: 187–188, Fig. 6.

Nydam (4 specimens), Nybøl, Sønderborg – O. Crumlin-Pedersen 1996: 4, Fig.; F. Rieck 1996: 6; F. Rieck et al. 1999: 21–22, Fig. 13.

Sejlflod (4 specimens), Ålborg, graves DI, IZ – ÅHM 669, x 1068, x 1069, x 1284, x 1285; see J. N. Nielsen, L. Bender Jørgensen, E. Fabech & E. Munksgaard 1985: 91–93, Fig. 12[5].

NORWAY:

Birkeland (*ca* 16 specimens), Birkenes, Aust-Agder, grave – O. Rygh 1885: 6, Fig. 272; J. Reichstein 1975: 117, Pl. 14, ibid. bibliography.

Skreros (*ca* 6 specimens), Vegusdal, Aust-Agder, grave – J. Reichsten 1975: 117, Pl. 133, ibid. bibliography.

Veien (2 specimens), Norderhov, Buskerud, grave – O. Rygh 1885: 7, Fig. 200d; J. Reichstein 1975: 116, Pl. 121.

GERMANY:

Bosau, Holstein, grave – W. Gebers & H. Hinz 1977: 19, Figs. 5: 1–2; 6: 4, 6.

Sheet fibulae

The main group of artefacts, traditionally connected with Sösdala style are silver-sheet fibulae of the type Kvarmløse-Mejlby with animal representations in profile (J. E. Forssander 1937: 12; U. Lund Hansen 1970). The question arises why other silver-sheet brooches, often gilt, with rich all over stamp decoration, as e.g., the fibulae from Torstorp Vesterby or Sejlflod, grave OO should not be included.

This category of artefacts, connected with Late Roman Period brooches type Zakrzów/Sakrau, is characterised by marked internal variation. This could explain why no detailed classification of Scandinavian sheet fibulae has been proposed[6] except for a general division into specimens with animal heads in profile and ones

[4] Apparently two exceptional finds are two bronze pendants from Bækkegård, Bornholm, grave 166 found in the context of the late Late Germanic Iron Age, phase 2 (L. Jørgensen 1990: 37, 135–136, Pl. 25: 4–5). They represent pelta-shaped pendants with two animal heads in profile, decorated with stamped circles.

[5] The recent publication of Sejlflod cemetery (J. N. Nielsen 2000) has just appeared soon before printing this book and could not be included into analysis.

[6] Unlike the Scandinavian finds sheet fibulae from south-eastern Europe have a much more detailed typology (see A. Kokowski 1996b, ibid. bibliography).

lacking this motif (see U. Lund Hansen 1970; E. Straume 1987: 13–14; J. Bemmann 1993: Fig. 12). The latter have been divided recently into two types (P. Ethelberg 1986: 25–29). Type 1 represents brooches with a spade-like foot and semicircular head, type 2 – items with a wide rhomboid foot and semicircular or rectangular head. Following this typology we may regard sheet fibulae with animal heads in profile as type 3.

The Sösdala horizon of sheet fibulae includes, in the opinion of the author type 2 as well as type 3 specimens (see lists below)[7]. All of them are valuable silver brooches, often partly gilt or with niello inlay, decorated by stamping. In one case, a brooch from Bruarebacka, the stamp decoration is combined with low chip-carving. A rich composition of stamp motifs including stars, multiconcentric circles and semicircles, filled triangles and rectangles, covers the surface of the head and the foot as well as the bow. The latter may also be decorated with rings of scored wire. The fibulae in question feature a semicircular or, more often, rectangular head, which appears to be a late typological pattern (see P. Ethelberg 1986). The bow is usually shorter than the foot. The latter forms a rhomboid or rarely rectangular plate (Båstrup; Sejlflod, grave OO) ending in round flat enlargements. The enlargements of animal heads in profile represent the latest typological feature[8] significant for type 3. A rare decoration seen only in a few type 3 specimens, are representations of the figure motifs on the head. A brooch from Roligheden features a representation of two animals biting each other's hindquarters. The Sejlflod fibula from grave DI is decorated with two animals facing each other. In all of these representations the outline is marked with a single niello line while their body is filled out with stamp ornamentation. The figures on the Mejlby brooch were cast separately and riveted or soldered onto the body of the brooch which originally featured two animals facing each other, with rolled-up hindquarters; only one of these representations survived.

The common feature of the sheet fibulae just described is their unusual character shown clearly by the material as silver or partially gilt silver as well as the rich decoration. Special position of these finds may be aptly illustrated by the case of a brooch from grave DI in Sejlflod. This specimen type 3 had been repaired several times. Its silver foot was reinforced with a bronze construction placed on the underside; a bronze catch-plate had also been soldered on. The silver bow was riveted to the silver foot and head with bronze plates. All of which indicates that the specimen probably continued in use for quite a long period (J. N. Nielsen, L. Bender Jørgensen, E. Fabech & E. Munksgaard 1985: 104–105) which confirms its value.

Among type 2 sheet brooches several items may be regarded as bronze imitations of the valuable silver fibulae. Some of these specimens feature an elaborate stamped ornament e.g., the finds from Fossvik, Sejlflod, grave U or Kristianstad. Less elaborately decorated silver or bronze specimens may have been imitations of precious metal masterpieces produced by the local craftsmen instead of a master jeweller. From this perspective the Nyrup fibula may be regarded as an imitation. This would explain its rather simple stamp decoration. It should not be ignored that some other features of the brooch in question as a rectangular head or presence of partial gilding seem to be typologically late.

Type 2 and type 3 sheet fibulae (Fig. 20) have the same distribution range in Scandinavia; they are on record in Jutland and Sjælland, Denmark, Scania and Västergotland, Sweden and in southern Norway: Rogaland, Aust-Agder, Vestfold and Østfold. The main concentration occurs in Jutland.

The combination diagram (Fig. 21) was made only for graves containing chronological indicators characteristic for the Scandinavian environment[9].

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[7] The list includes only well-preserved finds which had identifiable significant features.

[8] The presence of animal head in profile is especially characteristic for the relief brooches (see N. Åberg 1924: Figs. 38–39, 46–50; B. Hougen 1967: Figs. 9–10, 17–21).

[9] Imports like, for example *Stützarmfibel* from Sejlflod, grave OO, have been omitted. The Nyrup find has not been included for reasons given in the coming section.

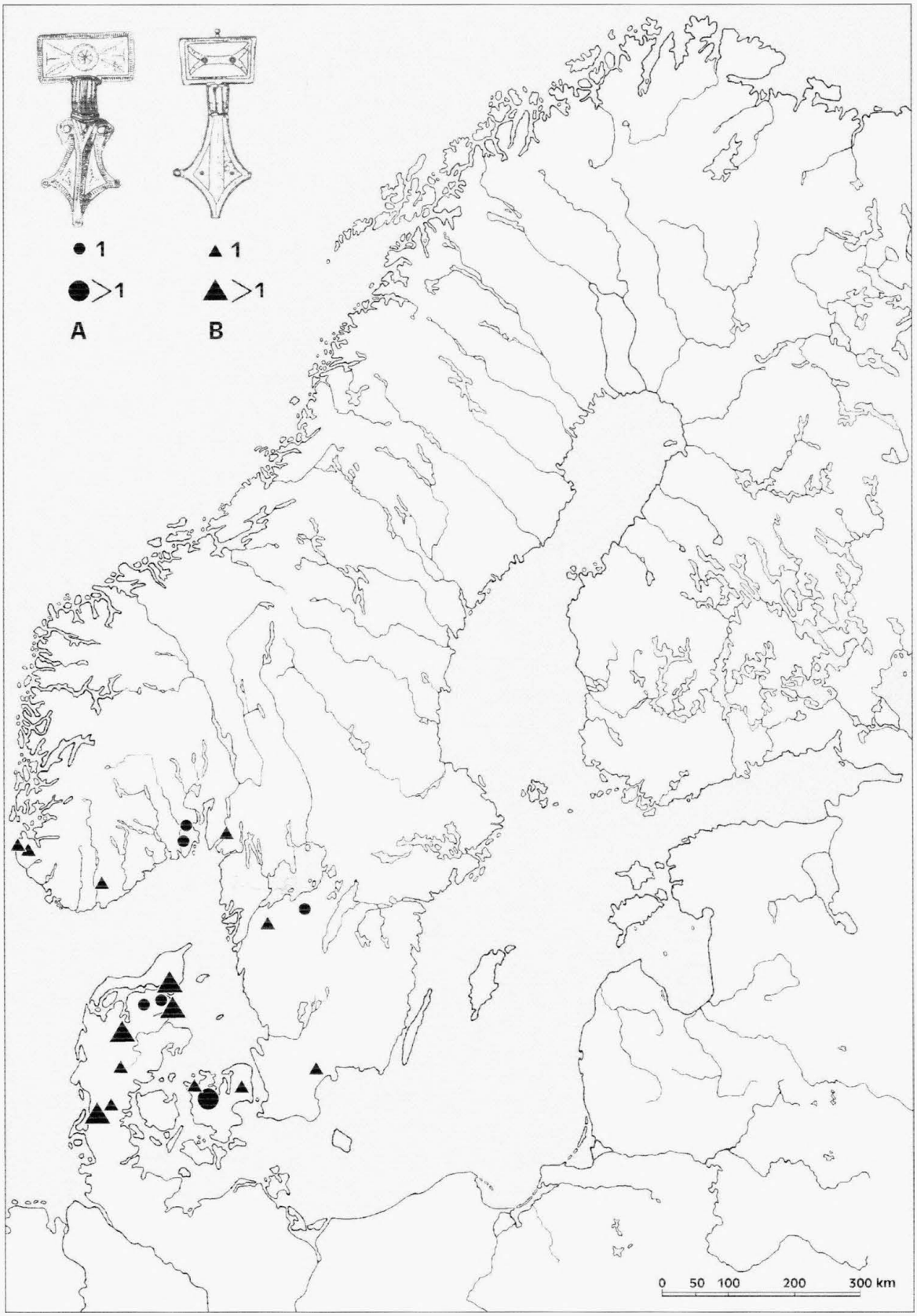

Fig. 20. Sösdala horizon. Distribution of sheet fibulae. A – specimens with animals in profile (type 3); B – specimens without animals in profile (type 2).

graves with sheet fibulae	Gudum-holm fibula	Nydam/Fyn Nydam fibula	clasps A	sheet fibula 2	biconical pendant	shield-like pendant	sheet fibula 3	pelta-shaped pendant	cruciform fibula
Sejlflod U	●			●					
Gudumholm	●			●	●				
Enderupskov 136		●		●					
Sejlflod OO		●		●		●			
Hjemsted 303			●	●					
Torstorp Vesterby			●	●	●				
Nikkelverket				●					●
Grålum				●					●
Mejlby					●	●	●		●
Roligheden							●		●
Eidsten							●		●
Sejlflod DI							●	●	●

Fig. 21. Combination diagram for graves with sheet fibulae.

The diagram may perhaps solve the question discussed in literature (comp. H. Geisslinger 1961; 1967; U. Lund Hansen 1992; 1994) regarding the rise of the *Sösdalastufe*. According to H. Geisslinger it is designated by the grave at Nyrup which is treated by Danish archaeologists as indicator of C_3 who also tend to connect the Sösdala style with the Early Germanic Iron Age. The Sösdala horizon of sheet fibulae suggests that both these views may be correct. Sheet brooches of type 2 occur in assemblages either with artefacts dated to phase C_3, like Gudumholm, Nydam and Fyn Nydam fibulae or specimens characteristic for Early Germanic Iron Age, such as cruciform brooches. Type 3 sheet fibulae are associated only with cruciform brooches. Finally, both types of sheet fibulae co-occur with other elements of the Sösdala horizon, namely pelta-shaped and biconical pendants as well as shield-like pendants.

The importance of the Nyrup find requires a separate discussion. The assemblage was not included in the combination diagram because there are some doubts as to whether the grave may be treated as a close find. These objects had been discovered by chance by a non-archaeologist, Jens Larsen when digging his land 21 June 1875. Henry Petersen, archaeologist from the National Museum in Copenhagen, visited him only in August. According to the inventory book of the National Museum a number of items belong to the assemblage but only some of them were listed in the description of the grave[10]. This could be either the result of poor state of preservation of some artefacts, which may have escaped notice of a non-professional finder. Or, the Nyrup grave may have been mixed. The sheet fibula from Nyrup was

[10] See the archive of Prehistoric and Medieval Department of the National Museum in Copenhagen.

associated with two type Mackeprang XIII fibulae (M.B.Mackeprang 1943), a swastika brooch, a precious metal hair pin and glass beaker with oval-cuttings. The latter three artefacts are usually dated to the Late Roman Period. Although 5-armed swastika brooch from Nyrup represents the latest variant of this type of ornaments and could be assigned to phase C_3, such possibility hardly takes place in the case of silver hair pin or glass beaker (see U. Lund Hansen 1995: 237–240; E. Straume 1987: 119–120). On the other hand Nyrup grave produced coins, namely two *siliquae* of Constantine I (336–337) and a Constans *solidus* (337–350) (A. Kromann 1995: 350, Fig. 13:4). On the basis of these finds the grave is dated to the 2nd half of the 4th c. (U. Lund Hansen 1971).

The Torstorp Vesterby find containing a Constantius II *siliqua* (340–351) (A. Kromann 1995: 350, Fig. 13:4) has the same absolute chronology. The grave contains a partially gilt elaborately stamp-ornamented type 2 silver-sheet fibula. This specimen may be safely included in the Sösdala horizon, unlike the less much elaborate Nyrup brooch.

Sheet fibulae type 2

DENMARK:

Båstrup, Øster Snede, Vejle – N. Åberg 1924: 11, 77, Fig. 29.

Enderupskov, Gram, Haderslev, grave 136 – HAM 1053 x 22106; see P. Ethelberg 1986: 67–68, Fig. 45.

Gudumholm, Romdrup, Ålborg, grave – U. Lund Hansen 1971: DK 40.

Hjemsted (2 specimens), Skærbæk, Haderslev, grave 303 – HAM 1004 x 992, x 1000; see P. Ethelberg 1986: 148–151.

Lime, Lime, Viborg, grave – U. Lund Hansen 1971: DK 41.

Nyrup, Højby, Holbæk, grave – U. Lund Hansen 1971: DK 42.

Sejlflod (3 specimens), Ålborg, graves OO, U – ÅHM 669 x 1413, x 1099, x 2001; see J. N. Nielsen, L. Bender Jørgensen, E. Fabech & E. Munksgaard 1985: 77–79, 117.

Torstorp Vesterby, Torslunde, Smørum, København, grave – NM C 135/90; see E. Fonnesbech-Sandberg 1990; 1993: 179.

NORWAY:

Grålum, Tune, Østfold, grave – U. Lund Hansen's archive.

Håland, Lye, Jæren, Rogaland – N. Åberg 1924: 10, 76

Kvassheim, Hå, Jæren, Rogaland – N. Åberg 1924: 10, 77.

Nikkelverket (Fossvik), Evje, Aust-Agder, grave – J. Reichstein 1975: 117, Pl. 6: 1–8.

SWEDEN:

Kristianstad, Kristianstad, Scania – N. Åberg 1924: 1, 76, Fig. 27.

Torestorp, Brun, Västergotland – N. Åberg 1924: 11, 77, Fig. 30.

Sheet fibulae type 3

DENMARK:

Kvarmløse (2 specimens), Tølløse, Holbæk, grave – U. Lund Hansen 1970: 64–65, Figs. 1–2, 8–13; 1971: DK 44.

Mejlby (2 specimens), Brorstrup, Ålborg, grave – U. Lund Hansen 1971: DK 43.

Sejlflod, Ålborg, grave DI – ÅHM 669 x 1065; see J. N. Nielsen, L. Bender Jørgensen, E. Fabech & E. Munksgaard 1985: 73–75, Figs. 6–8.

NORWAY:

Eidsten, Brunlanes, Vestfold, grave – N. Åberg 1924: 12, 77, Fig. 33.

Roligheden, Hedrum, Vestfold, grave – N. Åberg 1924: 12, 77, Fig. 36.

SWEDEN:

Bruarebacka, Öttum, Västergotland – N. Åberg 1924: 12, 77, Fig. 34.

Shield-like pendants

The list of artefacts characteristic for the Sösdala horizon needs to be extended to include the so-called shield-like pendants (see list below). In the present study the term "pendant" accepted in literature will be used (O. Voss 1955; B. Magnus 1975; W. Gebers & H. Hinz 1977) even though it is not really appropriate since the ornament in question has no suspension loop or aperture. It looks like a miniature circular shield with a conical or hemispherical boss, made of fine sheet metal. There is usually a handgrip at the back. Pendants ranges in diameter from 2 cm (specimen from Høstentorp) to 4 cm (Hol) or 4.5 cm (Mjølhus Vestre, Skreros 2b). A reconstructed pendant from Erga apparently had a diameter of no less than 6 cm.

The bosses of shield-like pendants are plain; the shield has an elaborate all over stamped ornament consisting of star motifs, rows of multiconcentric circles and semicircles, rectangles with a diagonal cross and triangles filled with a combination of various decorative elements. Stamps forming a scroll pattern occur on four items (Horr, Gjone, Skreros 2b, Rødbjerg/Tornbygård). An exception appears to be one of the shield-like pendants from the Høstentorp hoard featuring apart from stamped semicircles a chip-carved design of a six-pointed star.

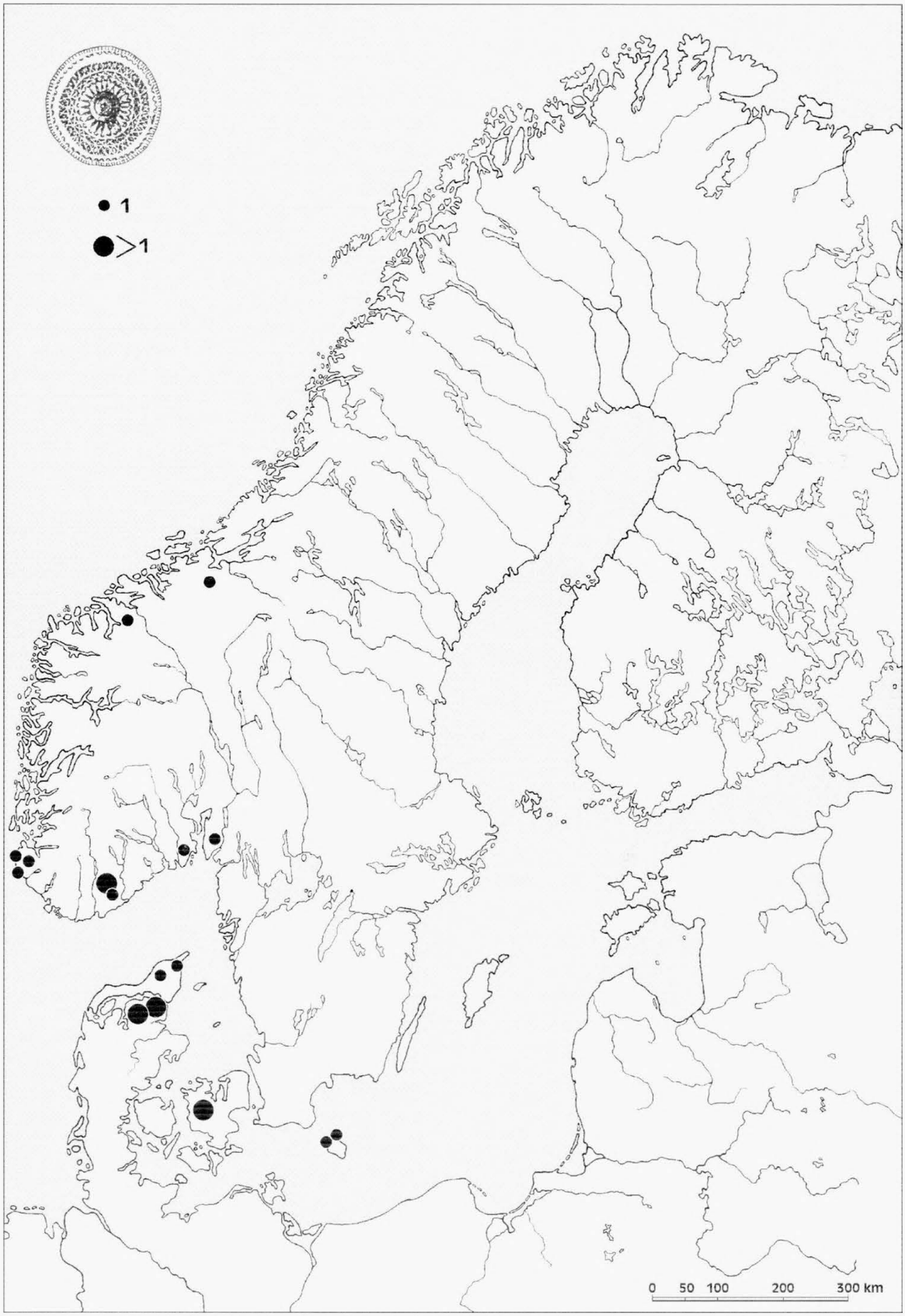

Fig. 22. Sösdala horizon. Distribution of shield-like pendants.

graves with shield-like pendants	Nydam/Fyn Nydam fibula	Bornholm fibula	sheet fibula 2	bird-like pin	equal-armed fibula	pelta-shaped pendant	cruci-form fibula	relief fibula	bucket shaped pot	S-shaped fibula	sheet fibula 3	biconical pendant
Krosshaug	●							●				
Melsted 8		●						●				
Sejlflod OO	●		●									
Mjølhus Vestre							●					
Sejlflod TR							●					
Gjone				●			●					
Skreros 2b						●	●					
Skreros 2a					●							
Hole							●	●	●			
Erga							●	●	●			
Hol					●		●	●	●	●		●
Mejlby							●				●	●

Fig. 23. Combination diagram for graves with shield-like pendants.

An important feature of shield-like pendants is the material they are made of, usually silver or gilt silver. Four specimens are made in gold (Krosshaug, Nordre Rostad, Råbjerg, Linderup Mark). An imitation of precious metal shield-like pendants may be two bronze items recorded at Skreros and Rødbjerg/Tornbygård[11] but they are an exception. Generally this category of artefacts represents exquisite jewellery.

Shield-like pendants occur in two main concentrations one of them in north Jutland the other in southern Norway, including Rogaland, Aust-Agder, Vestfold and Østfold (Fig. 22). A find of 8 such items is recorded in Sjælland while single dispersed specimens are known from northwestern Norway and Bornholm. Pendants in question also occur in Anglo-Saxon contexts[12] where they may be regarded as yet another example of Scandinavian influence (B. Magnus 1975: 48, 75–78; comp. J. Hines 1984). Two gilt silver pendants from the Bosau grave in Schleswig (W. Gebers & H. Hinz 1977: 15, 19, Figs. 5: 3–4; 6: 1–3) may likewise be associated with Scandinavian workshops. They are very similar in decoration but are completely flat and have no shield-bosses.

It is worth recalling here also the circular and rectangular shield-like mountings with conical stamp-decorated engraved faceted bosses

[11] According to the inventory card of the Bornholm Museum the ornament from Rødbjerg/Tornbygård is dated to late Viking Age or even Middle Ages. Despite this it has been included in the present discussion. The ornament in question is very similar in design to the pendants cited above with a scroll-pattern. In addition it is not the only such item made in bronze. Being a metal detector find the pendant cannot be dated.

[12] Cemeteries at Sleaford, Lincolnshire and Burwell, Cambridgeshire (B. Magnus 1975: 48).

discovered at Untersiebenbrunn (W. Kubitschek 1911). Unlike Scandinavian finds they represent elements of horse harness. Well-known contacts linking Scandinavia with south-eastern Europe going as far back as the Late Roman Period (comp. U. Lund Hansen 1995) would explain such similarities.

Shield-like pendants occur primarily in assemblages with indicators typical for Early Germanic Iron Age as is shown in the combination diagram (Fig. 23). Most of them co-occur with cruciform or relief brooches. Two graves containing Nydam or Fyn Nydam fibulae do not seem to change the general relative chronology of the ornaments in question. The find from Gjone appears to be one of the youngest, being dated by J. Reichstein to his phase C_3/D_1 (J. Reichstein 1975: Pl. 132).

Absolute dating of shield-like pendants may be based on the Høstentorp hoard discussed above in association with the pelta-shaped pendants.

Shield-like pendants

NORWAY:

Erga, Klepp, Rogaland, grave – SMÅ 1947: 146–147: B. Magnus 1975: 51, Fig. 22.

Gjone, Kvelde, Hedrum, Vestfold, grave – AB 1902: 344–345; B. Magnus 1975: 49–50, Fig. 19.

Hol, Inderøya, S. Trøndelag, grave – Oldt. II 1912: 48–57; B. Magnus 1975: 52–53, Fig. 24.

Hole, Grytens, Romsdalen, Möre & Romsdal, grave – U. Lund Hansen's archive.

Horr, Hå, Rogaland – AB 1891: 146; B. Magnus 1975: 52, Fig. 23.

Krosshaug, Klepp, Rogaland, grave – B. Magnus 1975: 47, Fig. 17.

Mjølhus Vestre, Froland, Aust-Agder, grave – UOÅ 1962: 229-230; B. Magnus 1975: 50, Fig. 20.

Nordre Rostad, Rolvsøy, Tune, Østfold, grave – AB 1880: 186; B. Magnus 1975: 49, Fig. 18.

Skreros (2 specimens), Vegusdal, Aust-Agder, barrow 2 – Oldt. VI, 1917: 152–153; Oldt. VIII 1918: 227–230; B. Magnus 1975: 50–51, Fig. 21.

DENMARK:

Høstentorp (8 specimens), Frerslev, Ringsted, hoard – O. Voss 1955: 189–190, Fig. 8–9.

Linderup Mark, Berglum, Hjørring – O. Voss 1955: 190 footnote 113.

Mejlby (2 specimens), Års, Ålborg, grave – U. Lund Hansen 1971: DK 43.

Melsted, Gudhejm, Bornholms Øster, Bornholm, grave 8 – NM C 2947; see O. Klindt-Jensen 1957: 234 no 8.

Råbjerg, Horns, Hjørring – O. Voss 1955: 190 footnote 113.

Rødbjerg/Tornbygård, Klemensker, Bornholm – BMR 1611 x 18.

Sejlflod (2 specimens), Ålborg, graves OO, TR – ÅHM 669 x 1410, x 1459.

Biconical pendants

Last, but not least in the Sösdala horizon are the so-called biconical pendants (see list below). This term has been used in literature (U. Lund Hansen 1971; lately J. N. Nielsen 1997) along with the more vague *Hängeschmuck* (O. Rygh 1885: 15; E. Straume 1987: 83). The shape of these pendants is quite similar to the reel-like pendants. These small ornaments, ranging in height between 1.2 to over 2 cm, were made of thin sheet silver[13]. They were decorated with horizontal lines and stamped usually all over ornament in the star motif, a row of triangles, multiconcentric circles and semicircles. Niello became an additional decoration (Gudumholm, Mejlby, Hol). An exception appear to be undecorated biconical pendants (Sætrang, Havor) and items made in bronze (Veiberg, Havor). The latter are probably imitations of specimens made in precious metal.

Biconical pendants were mainly used in necklaces. They seldom occur singly in one grave (for example Langlo or Kvassheim).

Biconical pendants occur in concentration in the western and southern parts of Norway as well as in Bohuslän, western Sweden and northern Jutland (Fig. 24) areas traditionally connected with each other. Isolated finds have been recorded in central and south Jutland, Sjælland, central Sweden and Gotland. The latter may be regarded as an imitation of a precious metal west Scandinavian pendants[14].

[13] A gold item decorated with granulation from Ulvsta, Sweden (N. Åberg 1956: 184; J. N. Nielsen 1997: 33, Fig. 3: 10) is not included being an element of a different stylistic tradition (see remarks above concerning pelta-shaped pendants).

[14] The shape of the Havor specimen is very similar to pendants in question. In contrast to other Gotland finds also listed by B. Nerman (1935: 7, Figs. 100–102). Their similarity to ornaments discussed here is apparently too distant.

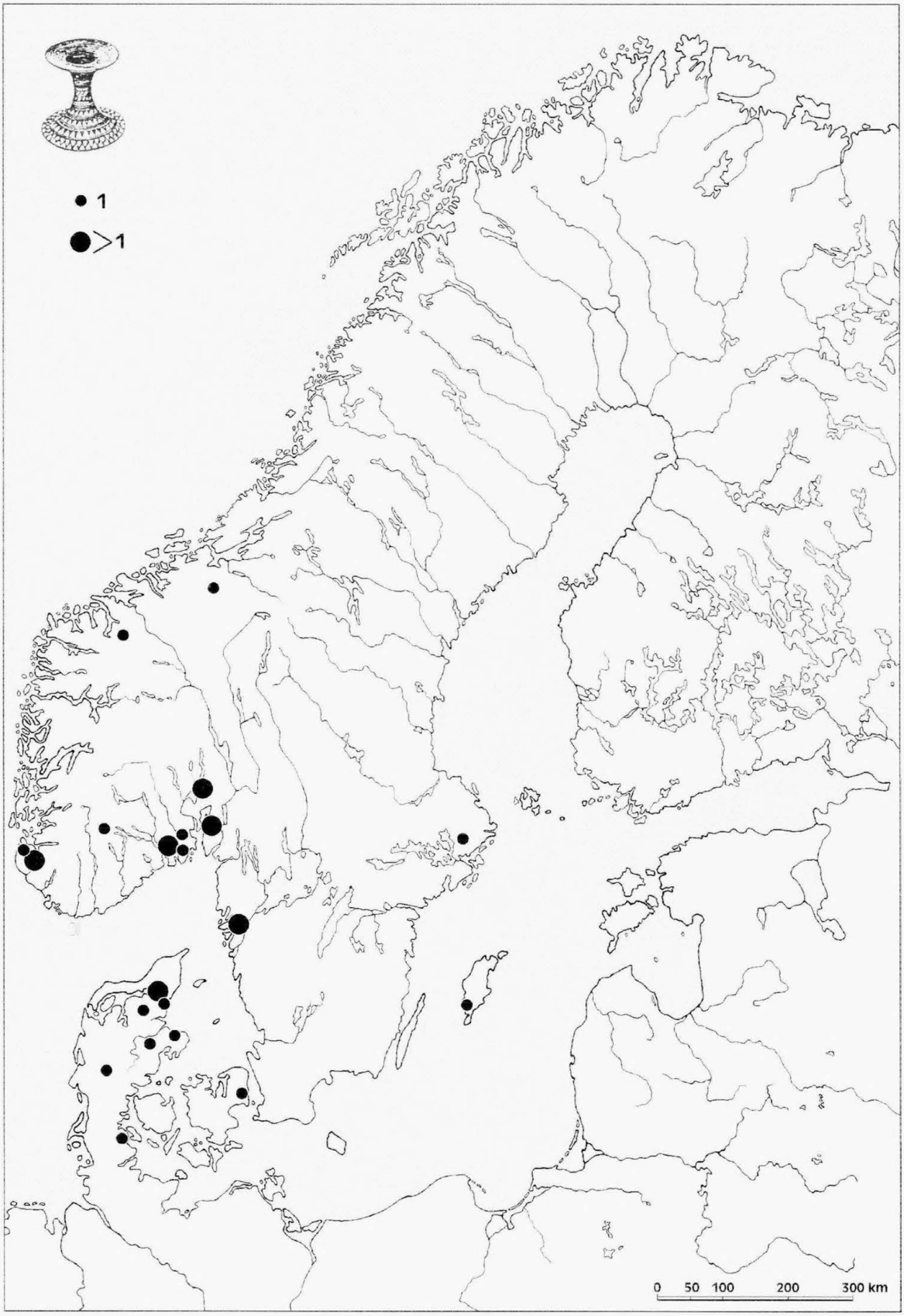

Fig. 24. Sösdala horizon. Distribution of biconical pendants.

graves with biconical pendants	Nydam fibula	Gudum-holm fibula	sheet fibula 2	clasps A	shield-like pendant	sheet fibula 3	cruci-form fibula	bucket-shaped pot	relief fibula	type Snar-temo	S-shaped fibula	equal-armed fibula
Kvassheim 30	●											
Sætrang	●											
Gudumholm		●	●									
Torstorp Vesterby			●	●								
Mejlby					●	●	●					
Tu							●					
Veiberg							●	●				
Langlo							●		●	●		
Hol					●		●	●	●		●	●

Fig. 25. Combination diagram for graves with biconical pendants.

According to the combination diagram (Fig. 25) biconical pendants appear in assemblages both with artefacts characteristic for phase C_3, like Nydam and Gudumholm fibulae and with ones dated to Early Germanic Iron Age i.e., cruciform and relief brooches as well as bucket-shaped pots. The latter group prevails. In absolute chronology the *terminus post quem* for biconical pendants is probably *ca* 350 AD, basing on the Torstorp Vesterby grave containing the *siliqua* of Constantius II (340–351). It has been suggested that the Fullerö grave may have a slightly earlier dating given that it contained a Maximianus *aureus* (286–305). However, this coin, used as pendant, co-occurred with Migration Period artefacts i.e., a belt set, gold finger rings and weapons (G. Arwidsson 1948: Pls. 21, 24; comp. B. Nerman 1935: Figs. 87–88, 277–278, 433, 472). It is worth recalling that the *aureus*, a rarity in Scandinavia, may have continued in use for quite a long time (comp. A. Bursche 1993).

Biconical pendants

NORWAY:

Dyster (2 specimens), Ås, Akershus – U. Lund Hansen 1971: DK 40 (21).

Gjerla, Stokke, Vestfold, mixed grave – U. Lund Hansen 1971: DK 40 (21); E. Straume 1987: 83–85; Pl. 26, 8.

Hol, Inderøya, S. Trøndelag, grave – Oldt. II 1912: 48–57; U. Lund Hansen's archive.

Kvassheim (3 specimens), Hå, Jæren, Rogaland, barrow 30 – (acc. to G. Lillehammer = barrow 77); B.5297; N. Åberg 1956: 183, Figs. 196, 208; G. Lillehamer 1996: 172, Pl. 12 d.

Langlo (3 specimens), Stokke, Vestfold, barrow 21 – O. Rygh 1885: 14, Fig. 281; N. Åberg 1956: 182, 184.

Ndr. Fevang, Sandefjord, Vestfold – U. Lund Hansen 1971: DK 40 (21).

Sætrang (2 specimens), Norderhov, Buskerud, grave – O. Rygh 1885: 8–9; N. Åberg 1956: 183, 185, Fig. 195; W. Slomann 1959: 18.

Tokkedalen, Mo, Bratsberg, Telemark – U. Lund Hansen 1971: DK 40 (21).

Tu, Klepp, Jæren, Rogaland, grave – N. Åberg 1956: 184 footnote 218.

Veiberg, Nordalen, Möre & Romsdal, grave – N. Åberg 1956: 184 footnote 217.

DENMARK:

Fannerup, Djurs Nørre, Randers – N. Åberg 1956: 182; J. N. Nielsen 1997: 31.

Gudumholm, Fleskum, Ålborg, grave – U. Lund Hansen 1971: DK 40.

Mejlby, Års, Ålborg – U. Lund Hansen 1971: DK 43.

Nydam, Nybøl, Sønderborg – C. Engelhardt 1865: 64, Pl. V, 17; N. Åberg 1956: 182.

Sejlflod (2 specimens), Ålbork, graves IM, NT – J. N. Nielsen 1997: 21, 31, Fig. 3: 1, 5.

unknown site, Denmark – J. N. Nielsen 1997: 32, Fig. 3: 7.

Torstorp Vesterby, Torslunde, Smørum, København – NM C 140/90; see Fonnesbech-Sandberg E. 1990; 1993: 179.

Vrangstrup, Houlbjerg, Viborg – F. Kaul 1990: 7–10, Figs. 2–3.

SWEDEN:

Fullerö, Gammla Uppsala, Uppland, grave – G. Arwidsson 1948: 41–44.

Havor, Hablingbo sn., Gotland, grave 165 – B. Nerman 1935: 7, Fig. 99.

Röra sn. (3 specimens), Bohuslän, grave – N. Åberg 1956: 184: Figs. 197–198.

Conclusions

The Sösdala horizon analysed in the present chapter consists of the following categories of artefacts: elements of ceremonial horse harnesses, pelta-shaped pendants, sheet fibulae, shield-like and biconical pendants. All of these pieces feature an elaborate almost invariably all over stamped ornamentation. The recurring motifs include stars, multiconcentric circles and semicircles, filled triangles and rectangles. Low chip-carving and niello become additional decorative techniques. The specimens in question were almost exclusively made of silver, gilt silver, bronze with silver inlay or rarely, gold (shield-like pendants). It is no accident that they are relatively uncommon in Scandinavian material some of them occurring also as isolated finds i.e., precious metal elements of the horse harness and type 3 sheet fibulae. All appear to have been goods of prestige belonging to the élite.

Apart from the ceremonial horse harnesses, not recorded outside Scania, the distribution of other elements of the Sösdala horizon link the same regions of southern Scandinavia (Figs. 18–20, 22, 24), i.e., Jutland, especially its northern part, south and south-western Norway, Sjælland, Scania and Västergotland. Schleswig, Bornholm or Gotland may be regarded as being on the periphery of the area of concentration. Studying the different categories of the Sösdala horizon artefacts it is possible to distinguish either specimens of quite local character, such as ceremonial horse harnesses, or interregional ones, i.e., type 2 and type 3 sheet fibulae. It is also interesting to follow the evidence of connections linking particular regions in question. Contacts between north Jutland and south-western Norway appear to be especially strong proving perhaps the occurrence of a migration from the former to the west of Norway in Late Roman and Early Migration Periods (see Chapter 2.1.).

According to the combination diagram (Fig. 26) artefacts of the Sösdala horizon may be dated primarily to Early Germanic Iron Age while all of the categories occur in assemblages with cruciform brooches. Type 3 sheet fibulae, pelta-shaped pendants and, to a lesser degree, shield-like pendants apparently become indicators of the phase in question. But on the other hand, in a number of graves elements of the Sösdala horizon, i.e., type 2 sheet brooches and biconical pendants co-occur with specimens characteristic for phase C_3, like Gudumholm, Nydam or Fyn Nydam fibulae. This would suggest that the Sösdala horizon, typical in general for Early Germanic Iron Age, partially overlaps with the earlier phase. This would be confirmed by finds associated with coins. The Torstorp Versterby grave and, with some reservations, the Nyrup assemblage, place the beginning of the Sösdala horizon in the 2nd half of the 4th c. According to the evidence of the Høstentorp hoard it ended sometime during the first half of the 5th c.

Apart from the broad term "Sösdala style" the author proposes another, the "Sösdala horizon" [15], based on horizons of certain artefacts traditionally connected with the Sösdala style, but never discussed together. Such an approach makes it possible to obtain a tool useful for synchronising different areas – Scandinavia and Balt territory. Rather than comparing the stamped ornament in general the author chose to compare horizons of artefacts featuring this ornament.

[15] It seems possible to establish also the "Untersiebenbrunn horizon" represented by ceremonial horse harnesses, axe-shaped pendants and belt sets type Strzegocice-Tiszaladány-Kercz.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sejlflod U	●		●													
Gudumholm	●		●		●											
Enderupskov 136		●	●													
Sejlflod OO		●	●			●										
Kvassheim 30		●			●											
Sætrang		●			●											
Krosshaug		●				●		●								
Hjemsted 303			●	●												
Torstorp Versterby			●	●	●											
Melsted 8						●	●	●								
Skreros 2a						●			●							
Fossvik			●								●					
Grålum			●								●					
Tu					●						●					
Sejlflod TR						●					●					
Mjølhus						●					●					
Gjone				●		●					●	●				
Langlo 21					●			●			●		●			
Hol					●	●		●	●	●	●			●		
Veiberg					●						●			●		
Hole						●		●			●			●		
Erga						●		●			●			●		
Skreros 2b						●					●				●	
Sejlflod IZ											●				●	
Birkeland											●				●	
Bosau											●				●	
Sejlflod DI											●				●	●
Mejlby					●	●					●					●
Roligheden											●					●
Eidsten											●					●

Fig. 26. Combination diagram for graves with elements of Sösdala horizon. Elements of Sösdala horizon are shadowed. 1. Gudumholm fibula; 2. Nydam/Fyn Nydam fibula; 3. sheet fibula type 2; 4. clasps A; 5. biconical pendant; 6. shield-like pendant; 7. Bornholm fibula; 8. relief fibula; 9. equal-armed fibula; 10. S-shaped fibula; 11. cruciform fibula; 12. bird-like pin; 13. Snartemo glass; 14. bucket-shaped pot; 15. pelta-shaped pendant; 16. sheet fibula type 3.

Samland horizon

Stamp ornamentation corresponding to the Sösdala style apparently flourished in the western part of Balt lands. It was distinguished by N. Åberg (1919: 29–52, Figs. 15–21, 25–28, 43–44) and called *Ostpreußische Sternornamentik* (East Prussian star ornamentation). This type of ornamentation is seen on star-footed brooches and on a certain type of strap ends[16]. Both are decorated with elaborate stamping with silver inlay as an additional pattern. The same features are represented on buckles with a rectangular ferrule and a metope at the spike base (N. Åberg 1919: Figs. 151–152). While N. Åberg was aware of these similarities he discussed them only in passing. According to Åberg the *Ostpreußische Sternornamentik* is characterised by stamp decoration, mainly in the star motif. In contrast to the Sösdala style chip-carved ornamentation was not used. N. Åberg drew attention to the great similarity between *Ostpreußische Sternornamentik* and Scandinavian star ornamentation. One explanation of this phenomenon could be that Scandinavian decoration techniques influenced the rise of Balt ornamentation. At the same time Åberg allowed that the similarities could also stem from a common source of inspiration seen by him in the Rhine basin area.

Apart from analysing of star-footed fibulae and strap ends in question N. Åberg dealt with individual stamp motifs (N. Åberg 1919: 47–49, Figs. 43–44). He compared the star motifs in Scandinavia and the Balt region pointing out the local and interregional patterns. Other stamped motifs were discussed only in the context of artefacts from former Ostpreußen.

Based on Åberg's work other scholars mentioned the evidence of West Balt stamp ornamentation with star motifs and pointed out the impact of the Sösdala style on the emergence of the West Balt star ornamentation, but they tended to touch the subject briefly (K. Godłowski 1970; 1974; R. Madyda 1977; R. Madyda-Legutko 1984; A. Bitner-Wróblewska 1991a; 1991b; W. Nowakowski 1996). The author proposes, following Åberg's suggestion, to introduce the term the "horizon of stamp-decorated artefacts" and call it the "Samland horizon" from its main concentration in the Samland Peninsula.

The horizon in question consists of star-footed brooches, tongue-shaped strap ends and buckles with a metope at the spike base and a rectangular ferrule. All of these feature an elaborate frequently all over stamped ornament. Other decorative techniques include engraving. A common feature is silver inlay.

Star-footed brooches

The main category of artefacts traditionally connected with *Ostpreußische Sternornamentik* are crossbow brooches with a star-like foot[17] and their further developments with a spade-like foot, namely types IIIB and VII according to the classification by A. Bitner-Wróblewska (A. Bitner-Wróblewska 1991a)[18]. The fibulae in question feature a semicircular foot-plate with a serrated rim or row of perforations or points along the edge[19]. The foot as well as the metope on the top of the bow was decorated with stamping placed along the edges and in the centre. The star motif was placed centrally while a combination of multiconcentric circles, semicircles, filled triangles, points or S-shaped stamp decorated the edges (A. Bitner-Wróblewska 1991a: Fig. 1).

The star-footed brooches were made of bronze, but their foot and the metope on the bow were inlaid with silver. Such precious ornaments occur in concentrations primarily in Samland (Fig. 27). A distinct concentration is manifested in western Lithuania, in the West Lithuanian and Lower Nemunas Groups. Apart from these regions specimens with silver inlay are recorded in other Balt lands but only as single, dispersed finds. They are known from the Mazurian Lakeland (Bogaczewo

[16] The strap end of type Fig. 29 (N. Åberg 1919) from Kosewo/ Kossewen is different from other ones and could not be included in the type discussed here.

[17] See Appendix G.

[18] Spade-footed brooches of type I have not been included. Type I may be regarded as a prototype of classic star-footed fibulae. This feature coupled with inner differentiation of type I argued against including these fibulae.

[19] See Chapter 2.3.

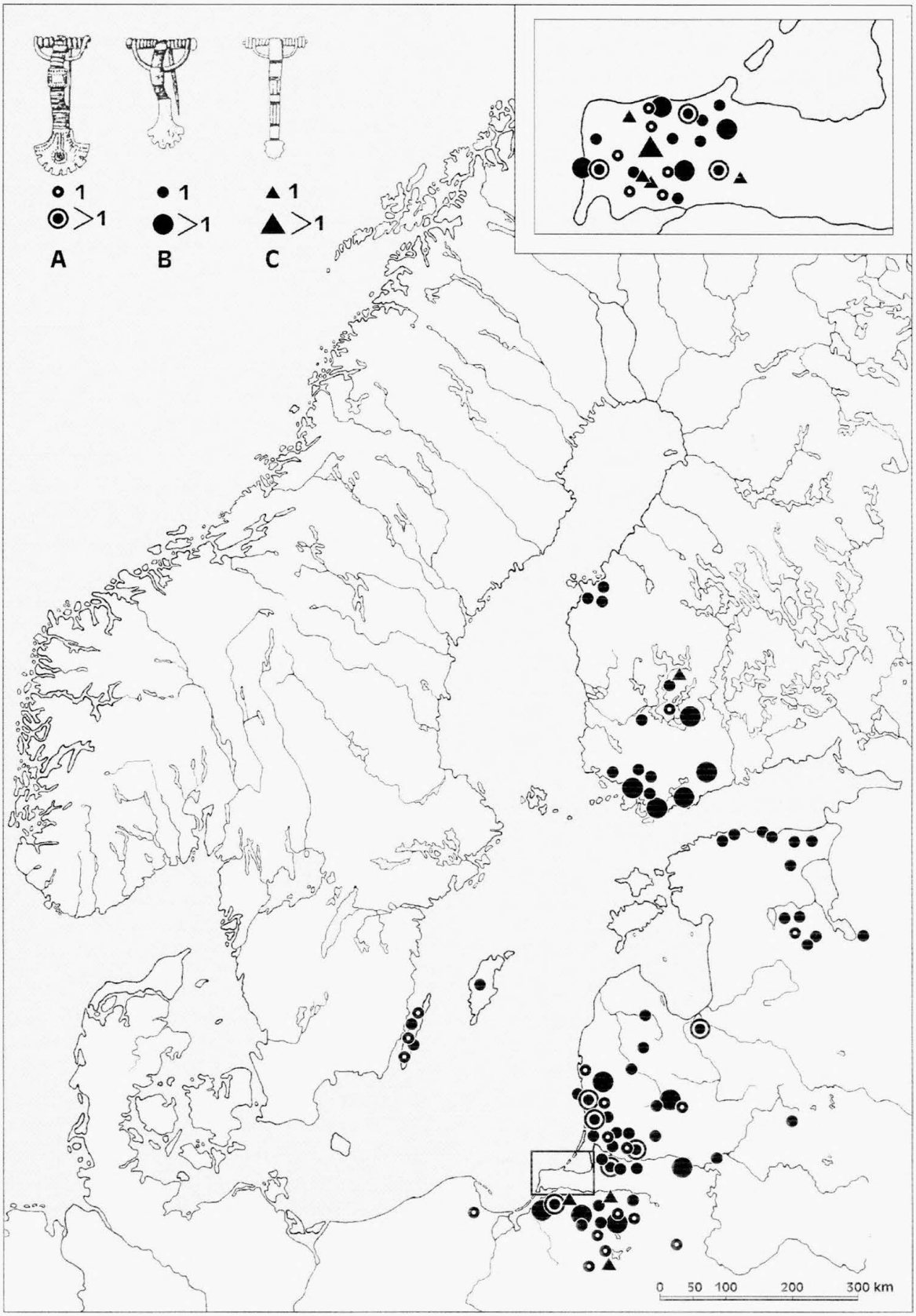

Fig. 27. Samland horizon. Distribution of star-footed brooches. A – bronze specimens with silver inlay; B – bronze specimens without silver inlay; C – iron specimens.

Culture), Gołdap and Suwałki areas of Sudovian Culture as well as from the Samogitian Flat Cemeteries Group. Two specimens were found at Pļavniekkalns, a cemetery situated in the Daugava mouth, the area of Semigallian Flat Cemeteries Group strongly influenced by Finnish culture. Further two specimens are recorded in "purely" Finnish lands, namely in eastern Estonia (Paali) and southern Finland (Notsjö), territory of Tarand Culture.

Several star-footed fibulae with silver inlay were found in Germanic lands, as imports from the eastern Baltic basin, particularly Samland. A significant concentration occurs on Öland, while single items are recorded at Agerbygård/Bakkegård, on Bornholm and at Pruszcz Gdański, the cemetery situated to the west of the Lower Vistula.

Apart from the precious star-footed brooches a number of simple bronze fibulae with a star- or spade-like foot but lacking silver inlay and stamp decoration are also known. Their spatial distribution generally shows the same areas of concentrations (Fig. 27) but the proportions between both categories of brooches in different regions are completely different. Among the widespread star- and spade-footed brooches in Finnish lands only two items with silver inlay and rich stamp decoration are on record while in Samland and western Lithuania the number of precious metal fibulae is higher or the same that of their less valuable counterparts.

A further simplification of artefacts discussed here is represented by iron brooches[20] recorded in particular in Samland and its surrounding area as well as in the Mazurian Lakeland (Fig. 27). A unique specimen is known from outside the area mentioned, namely an iron brooch from Kirjakka, Finland. The phenomenon of different types of brooches made of iron recorded in the Baltic basin was discussed in the previous section (see Chapter 2.2.).

The Samland horizon includes exquisite star-footed fibulae made of bronze with silver inlay and rich decoration, which were simplified by local artisans. The scale of these imitations of sumptuous ornaments is unknown among other elements of the Samland horizon. Mapping the distribution of both categories of artefacts appears to be the best way to show the concentration of artefacts of Samland horizon.

The relative chronology of the star-footed brooches will be discussed below together with other elements of the Samland horizon.

Strap-ends type Samland

Tongue-shaped strap ends (see list below) may be regarded as another category of artefacts characteristic for the Samland horizon. The wide and flat strap-ends have a rounded lower end. Occasionally these specimens become narrower in their upper or middle part. They represent group III according to R. Madyda classification (R. Madyda 1977: 386–387). As the term "tongue-shaped strap ends" appears to be too wide including as it does also narrow, pointed items[21] or *lanzettförmige Riemenzungen* (see N. Åberg 1919: Fig. 133), the author proposes to refer to the items in question as tongue-shaped strap ends "type Samland".

Tongue-shaped strap ends type Samland feature an almost all over elaborate stamp decoration. The ornament is placed along the edges and in the centre of the specimen. Apart from multi-concentric circles and semicircles there are rows of triangles, points, star and S-shaped motifs as well as diagonal cross and so-called *Wolfszahnmuster*. The strap ends in question were made of bronze, some with silver inlay. An exception appears to be two silver items, from Warnikam, grave 31 and Zaytsevo/Trentitten, grave 4, as well as an iron specimen with silver inlay found in grave 146 at Kovrovo/Dollkeim.

Spatial distribution of precious strap ends made of silver or with silver inlay covers almost exclusively the western part of the Balt lands, namely the Dollkeim/Kovrovo and Bogaczewo Cultures (Fig. 28). A significant concentration is

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[20] Former Eisliethen (2 specimens), Gąsior/Gonschor-Jaskovska See, Gurevsk/Traussitten, Kirjakka, Logvino/Medenau, Parkoszewo/Perkau, Pionerskij/Rantau, Uzornoe/Jäcknitz.

[21] Comp. tongue-shaped strap end from grave 178 at Dollkeim/Kovrovo (O. Tischler & H. Kemke 1902: Fig. 13) or a specimen from Grunajki/Gruneyken, grave 11, urn IX (O. Tischler 1879: 255, Pl. IV, 5). See also B. Nerman 1935: 78, Figs. 473–484.

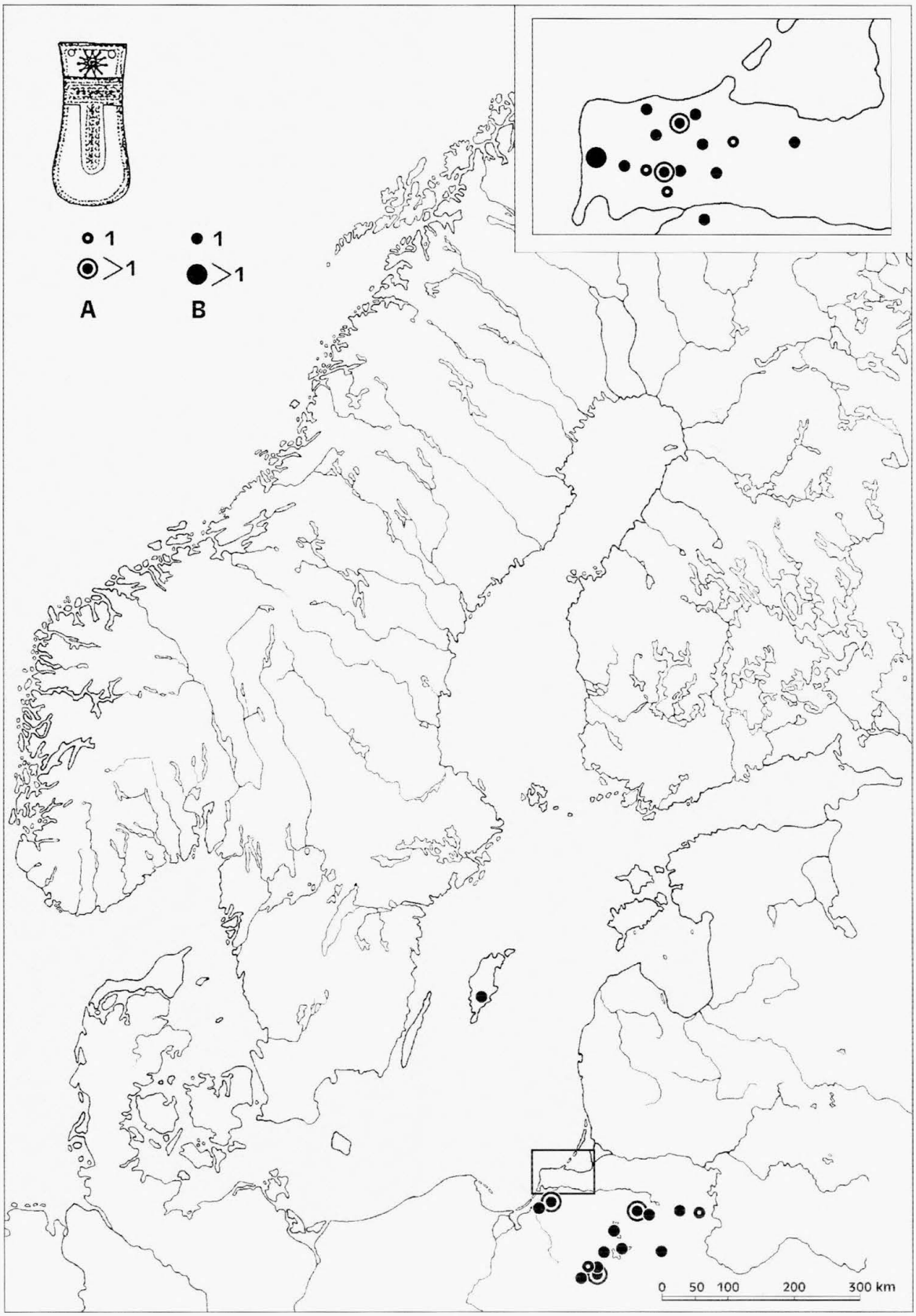

Fig. 28. Samland horizon. Distribution of strap ends type Samland. A – silver specimens or specimens with silver inlay; B – bronze specimens without silver inlay.

seen in Samland Peninsula. Only isolated finds are noted in the East Balt barrows zone (Boćwinka/ Alt-Bodschwingken, Krikštonys). Apart from the precious strap ends type Samland a number of bronze items with rich stamp decoration are also known. This category of artefacts may be supplemented by single imitations, namely simple, undecorated specimens (Gurevsk/Traussitten, Netta, Rudamina). The distribution of bronze [22] strap ends covers the same area of the Balt lands as that of their precious metal counterparts, with the main concentration in the Dollkeim/Kovrovo Culture.

Single, dispersed finds of tongue-shaped strap ends type Samland are also recorded outside Balt lands, namely at Siguls on Gotland (B. Nerman 1935: 79–80, 112–113, Fig. 485) and the Przeworsk Culture settlement at Jakuszowice (K. Godłowski 1995: 160, Fig. 7: 16). Both these items confirm the evidence of direct, lively links between Samland and areas in question as their shape and decoration is exactly the same as those of the strap end from Greibau, grave 63.

There is also a group of tongue-shaped strap ends deriving from type Samland recorded in the Wielbark and Przeworsk Cultures[23] (Fig. 29). They are especially similar in design to Balt ones but their decoration is much less elaborate. Multiconcentric circles become the principal, and usually, the only motif placed along the edges. *Wolfszahnmuster* ornament appears to be a rare additional pattern (e.g. Cecele, grave 502A). Some of the artefacts in question retain only their characteristic shape but are without ornamentation (e.g. Elbląg – Pole Nowomiejskie). All were made in bronze. An exception appears to be an iron strap end from Pierzchały, grave 15. None of these specimens features silver inlay.

The relationship between the Wielbark and Przeworsk Cultures tongue-shaped strap ends and those from the Balt lands has already been discussed in literature (A. Bitner-Wróblewska 1989: 165–172). The flourishing centre in Samland inspired its neighbours from Wielbark Culture settled to the east from the Lower Vistula and in northern Mazovia. The custom of using wide tongue-shaped strap ends with rounded lower end spread to southern Poland, to the area of the Masłomęcz Group and territory of the Przeworsk Culture[24].

Strap ends type Samland

Silver specimens or specimens with silver inlay:

DOLLKEIM/KOVROVO CULTURE:

former **Greibau** (2 specimens), raj. Zelenogradsk, grave 63– O. Tischler & H. Kemke 1902: 29, Pl. XI, 11, 17.

Kovrovo/Dollkeim (6 specimens), raj. Zelenogradsk, graves 124, 140, 146, 161, 163, 164 – O. Tischler & H. Kemke 1902: 22–25; Pl. XI, 2, 10, 14, 16, 19–20.

Lyublino/Serappen, raj. Zelenogradsk, grave 41 – N. Åberg 1919: 160.

Pereslavskoe/Drugehnen, raj. Zelenogradsk – N. Åberg 1919: 159.

former **Warnikam** (3 specimens), raj. Bagrationovsk, graves 31, 60 – O. Tischler & H. Kemke 1902: 43–44, Pl. XI, 5, 9.

Zaytsevo/Trentitten, raj. Zelenogradsk, grave 4 – F. E. Peiser 1919a: 332.

BOGACZEWO CULTURE:

Miętkie/Mingfen, voiv. Warmińsko-Mazurskie, grave 39 – F. Jakobson's archive.

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[22] The bronze specimens listed above also include several strap ends lacking information on their material, but it may be assumed that it was bronze. The method of publication of German archaeologists before the Second World War encourages the author to such assumption.

[23] WIELBARK CULTURE: **Cecele**,voiv.Podlaskie, grave 502A (J. Jaskanis 1974: 430–431, Fig. 1; 1996: 67–68, Pl. LXII, 4); **Elbląg-Pole Nowomiejskie** (3 specimens), voiv. Warmińsko-Mazurskie (E. Blume 1912: 57–58, Fig. 66); **Gródek Nadbużny** (2 specimens), site 1C, voiv. Lubelskie, graves 30, 64 (A. Kokowski 1986: 25; 1995: 125, Fig. 90); **Jasionowa Dolina**, voiv. Podlaskie, barrow X (D. Jaskanis 1958: 154–157, Fig. 5); **Masłomęcz**, site 15, voiv. Lubelskie, grave 140 (A. Kokowski & U. Kurzątkowska 1986: 12); **Modła**, voiv. Mazowieckie, grave 65/81 (A. Grzymkowski 1986: Fig. 23h); **Pierzchały**, voiv. Warmińsko-Mazurskie, grave 15 (A. Bezzenberger 1909b: 110; E. Blume 1912: 57–58); **Szpondowo**, voiv. Mazowieckie (M. Rudnicki & M. Trzeciecki 1994: 152–153, Pl. IV, 6); **Uśmierz**, site 1, voiv. Lubelskie (L. Gajewski & J. Gurba 1975: 427, Fig. 4; A. Bitner-Wróblewska & W. Wróblewski 1992).
PRZEWORSK CULTURE: **Mirków**, voiv. Dolnośląskie, grave (F. Geschwendt 1936: 270–271, Fig. 2); **Ojców**, voiv. Małopolskie (M. Mączyńska 1970: 202, 204, Pl. I, 22); **Olsztyn** (6 specimens), voiv. Śląskie (J. Szydłowski 1962: 313, Pl. IV, 9; 1974: 143–144, Pl. CLXXIV, f–l)); **Opatów**, site 1, voiv. Śląskie (K. Godłowski 1969: 146, Fig. 2:2); **Szczedrzyk**, voiv. Opolskie (J. Szydłowski 1974: 25, Fig. VIIc); **Żabieniec**, voiv. Śląskie (K. Godłowski 1964; 1969: 138, Fig. 3c).

[24] Undecorated tongue-shaped strap ends similar to type Samland are also recorded outside the Wielbark and Przeworsk Cultures, namely at Nydam, Denmark (G. Bemmann & J. Bemmann 1998: 150, Pl. 10: 178) and in Fîntînele Rît, Cherniakhov Culture (J. Tejral 1987: 20, Fig. 5: 7).

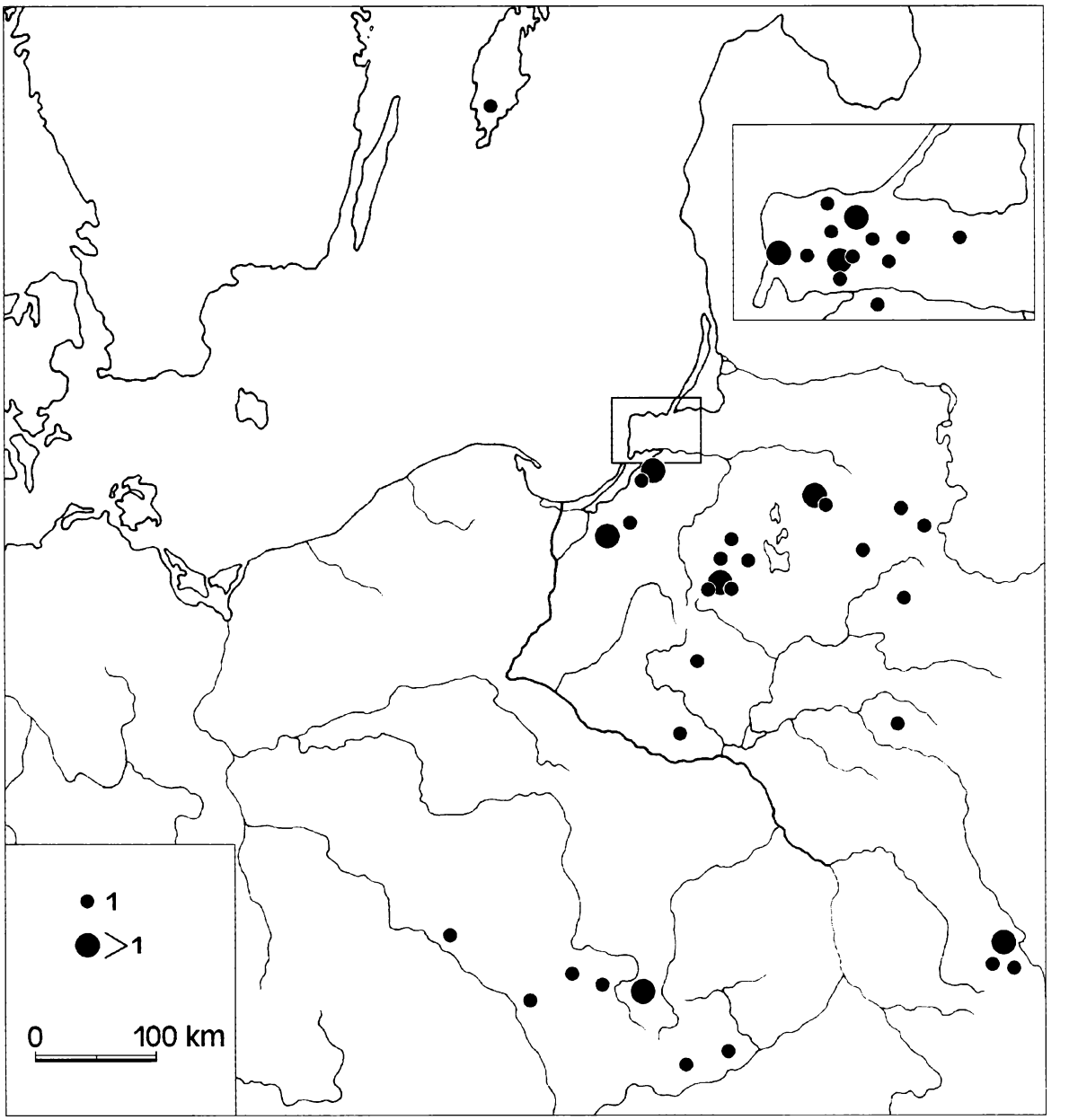

Fig. 29. Distribution of strap ends type Samland and specimens deriving from them.

Zaytsevo/Trentitten, raj. Zelenogradsk, grave 4 – F. E. Peiser 1919a: 332.

BOGACZEWO CULTURE:

Miętkie/Mingfen, voiv. Warmińsko-Mazurskie, grave 39 – F. Jakobson's archive.

SUDOVIAN CULTURE, GOŁDAP AREA:

Boćwinka/Alt-Bodschwingken (2 specimens), voiv. Warmińsko-Mazurskie, barrow X grave 2A, barrow XV grave 9a – K. Stadie 1919b: 429, 434.

EAST LITHUANIAN BARROWS CULTURE:

Krikštonys, raj. Lazdiniai, Lithuania, grave 1 – P. Kulikauskas 1959: 74–77, Fig. 4: 6.

Strap ends type Samland. Bronze specimens:

DOLLKEIM/KOVROVO CULTURE:

former **Greibau**, raj. Zelenogradsk, grave 272 – N. Åberg 1919: 159.

Gurevsk/Traussitten, raj. loco, grave 2 – N. Åberg 1919: 160.

Kovrovo/Dollkeim, raj. Zelenogradsk, grave 108 – O. Tischler 1880: 418, Fig. 16; H. Kemke 1901, 91–92.

former **Löbertshof**, raj. Polessk – N. Åberg 1919: 160.

Ozerovo/Transsau (2 specimens), raj. Zelenogradsk – N. Åberg 1919: 160.

Pionerskij/Rantau, raj. Zelenogradsk – N. Åberg 1919: 160.

former **Rosenau**, raj. Gurevsk – G. Berendt 1873, Pl. VIII.

former **Warnikam**, raj. Bagrationovsk, grave 25 – O. Tischler & H. Kemke 1902: 43.

BOGACZEWO CULTURE:

Grądy Kruklaneckie/Grunden, voiv. Warmińsko-Mazurskie, grave 65 – N. Åberg 1919: 34, Fig. 23.

Miętkie/Mingfen (2 specimens), voiv. Warmińsko-Mazurskie, grave 103, loose find – F. Jakobson's archive; N. Åberg 1919: 161.

Spychówko/Klein Puppen (2 specimens), voiv. Warmińsko-Mazurskie – MVFB Ia, 851; see W. Nowakowski 1998: 24–25, 115, Pl. 13: 230–231.

Sterławki Małe/Klein Stürlack, voiv. Warmińsko-Mazurskie, Poland, grave 78 – archive of Vaterländische Gedankhalle.

Wyszembork/Weißenburg, voiv. Warmińsko-Mazurskie – unpublished materials from the cemetery excavated by J. Okulicz & W. Nowakowski.

SUDOVIAN CULTURE, SUWAŁKI AREA:

Netta, voiv. Podlaskie, grave 42B – M. Kaczyński 1966: 90–91, Pl. 1.

SUDOVIAN CULTURE, GOŁDAP AREA:

Boćwinka/Alt-Bodschwingken (2 specimens), voiv. Warmińsko-Mazurskie, barrow II grave 2, barrow XV grave 2A – K. Stadie 1919b: 423, 429.

EAST LITHUANIAN BARROWS CULTURE:

Rudamina, raj. Lazdiniai, Lithuania – W. Antoniewicz 1920: 141–142, Pl. 6: 7.

Buckles with a metope

The last, but not least element of the Samland horizon appears to be buckles with a metope at the spike base (see list below). They feature an oval most often thickened frame with a metope on the base of the spike (*Schnallen mit Metopendorn*). The metope is usually decorated with an engraved diagonal cross. The buckles also have a rectangular ferrule. They represent types H38 and H39 according to R. Madyda-Legutko classification (1987b). These types differ only in section of the frame.

The ferrules are decorated by stamping placed along the edges. There are rows of circles, semicircles, points and filled triangles. The star motif is placed centrally. An exception appears to be a loose find from Kovrovo/Dollkeim with stamped decoration placed both on the ferrule and tongue.

The buckles in question are bronze with silver inlay on the ferrule and the metope. Such valuable items occur exclusively in the Dollkeim/Kovrovo Culture (Fig. 30). A number of bronze specimens features elaborate rich stamp decoration but lacks silver inlay. Apart from the territory of the Dollkeim/Kovrovo Culture they are recorded in the Bogaczewo Culture and Gołdap area of Sudovian Culture (Fig. 30). An isolated find is known from the West Lithuanian Group (Aukštkiemiai/Oberhof). A substantial concentration of buckles with a metope on the spike may be observed at the Plinkaigalis cemetery in the Central Lithuanian Group. Inhumation graves at Plinkaigalis make it possible to identify the function of buckles in question. Some of them belong to belt sets while others fastened the spurs straps.

Beside the richly ornamented buckles of the Samland horizon there is also a group of simplified bronze items which may be regarded as imitation of the precious specimens. They have neither silver inlay nor decoration. The author recorded both the buckles with the plain ferrule and specimens lacking ferrule but with a metope at the spike base. The distribution range of these simplified items in general shows the same areas of concentration as described above (Fig. 30). The Bogaczewo and the Dollkeim/Kovorovo Cultures as well as Gołdap area of Sudovian Culture become the main centres of their distribution. Single finds are known from the Elbląg Group, West and Central Lithuanian Groups as well as East Lithuanian Barrows Culture.

Isolated finds of buckles in question are also recorded outside Balt territory, viz. a plain item from Gotland[25] and another such specimen in the Wielbark Culture[26].

[25] Siguls, Lye sn. (B. Nerman 1935: 79–80, 112–113, Textfig. 186).

[26] Cecele, voiv. Podlaskie, grave 502A (J. Jaskanis 1996: 67–68, Pl. LXII, 3).

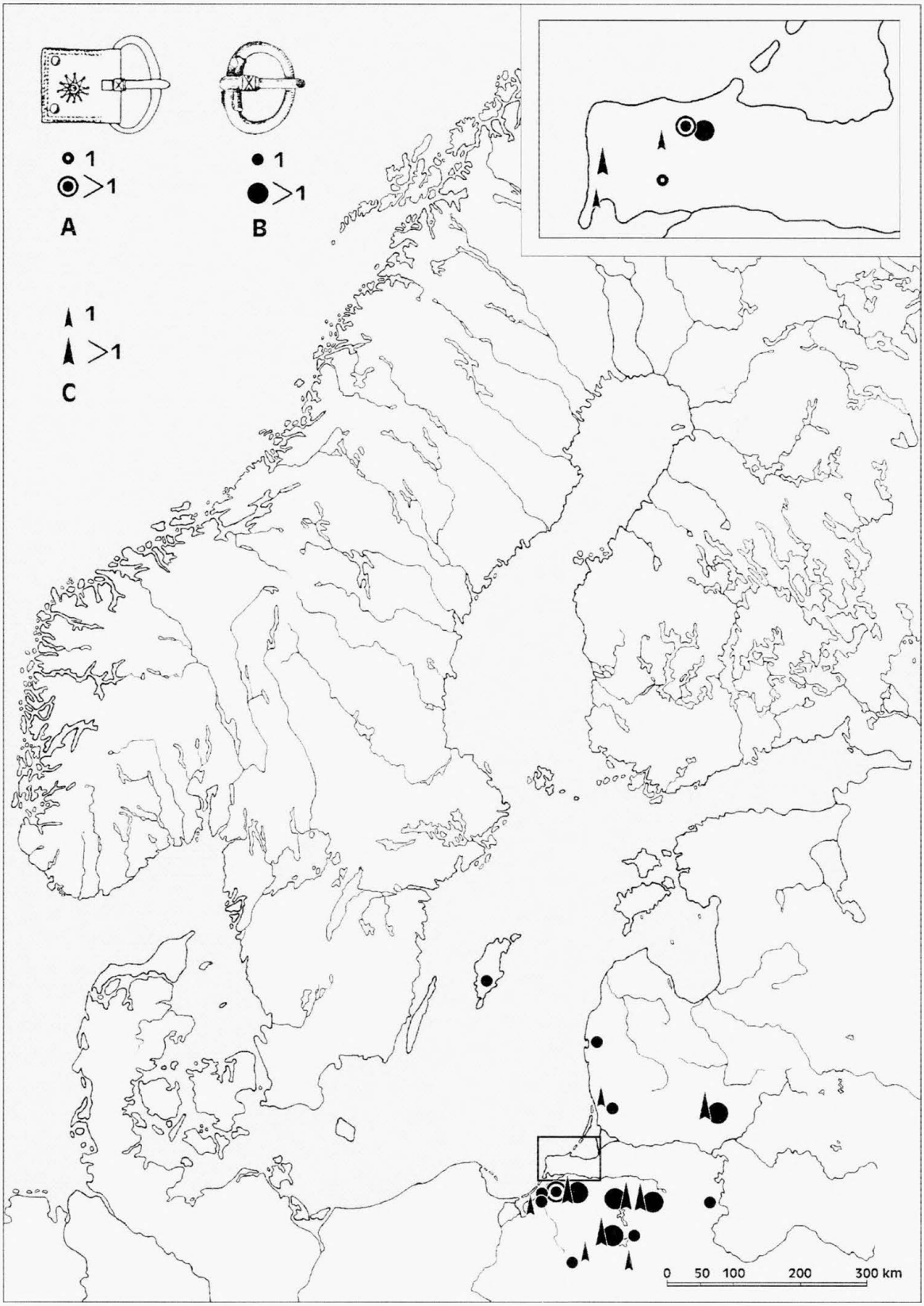

Fig. 30. Samland horizon. Distribution of buckles with a metope. A – specimens with decorated ferrule and silver inlay; B – specimens with undecorated ferrule or without ferrule; C – specimens with decorated ferrule without silver inlay.

Buckles with a metope

Bronze specimens with decorated ferrule and silver inlay:

DOLLKEIM/KOVROVO CULTURE:

Kovrovo/Dollkeim (3 specimens), raj. Zelenogradsk, graves 163, 178, loose find – O. Tischler & H. Kemke 1902: 24–25, Pl. XI, 1, 6, 12.

former **Greibau**, raj. Zelenogradsk, grave 211 – O. Tischler & H. Kemke 1902: 32, Pl. XI, 3.

Podgórze/Huntenberg, voiv. Warmińsko-Mazurskie, grave 23 – F. E. Peiser 1919b: 342.

former **Warnikam** (2 specimens), raj. Bagrationovsk, graves 30, 60 – O. Tischler & H. Kemke 1902: 43–44, Pl. XI, 7–8.

Bronze specimens with decorated ferrule:

DOLLKEIM/KOVROVO CULTURE:

former **Eisliethen**, raj. Zelenogradsk, grave 186 – A. Jentzsch 1896: 121, Pl. IV, 54.

former **Grebieten** (7 specimens), raj. Zelenogradsk, graves S.43 (2 specimens), S.82, S.94, N.95, N.104, S.113 – G. Bujack 1888: 214–216; J. Heydeck 1888: 240, Pl. VIII, IX; N. Åberg 1919: 159.

Kovrovo/Dollkeim, raj. Zelenogradsk, grave 108 – O. Tischler 1880: 418, Fig. 16; H. Kemke 1901: 91–92.

Letnoe/Tenkieten (2 specimens), raj. Zelenogradsk, graves 28, 65 – N. Åberg 1919: 160.

former **Warnikam** (3 specimens), raj. Bagrationovsk, graves 1, 25, 71 – O. Tischler & H. Kemke 1902: 41–43; N. Åberg 1919: 106–107, 165, Fig. 154.

BOGACZEWO CULTURE:

Miętkie/Mingfen, voiv. Warmińsko-Mazurskie, grave 66 – N. Åberg 1919: 166.

Szczytno/Ortelsburg, voiv. Warmińsko-Mazurskie, grave d (?) – O. Kleemann 1956: 72–73, Pl. X, 28.

Wyszembork/Weißenburg (8 specimens), voiv. Warmińsko-Mazurskie, objects 189b, 233, 6 loose finds – unpublished materials from the cemetery excavated by W. Nowakowski and P. Szymański.

WEST LITHUANIAN GROUP:

Aukštkiemiai/Oberhof, raj. Klaipėda, grave 132 – N. Åberg 1919: 162, Fig. 153.

SUDOVIAN CULTURE, GOŁDAP AREA:

Boćwinka/Alt-Bodschwingken (5 specimens), voiv. Warmińsko-Mazurskie, barrow II grave 2, barrow V grave 2, barrow X grave 2A, barrow XV grave 9a (2 items), barrow XVIII grave 2 – K. Stadie 1919b: 423, 429, 434, 439, Fig. 190.

Grunajki/Gruneyken (2 specimens), voiv. Warmińsko-Mazurskie, barrow XI grave 1, loose find – O. Tischler 1879: 229, Pl. IV, 1, 4; N. Åberg 1919: 165.

CENTRAL LITHUANIAN GROUP:

Plinkaigalis (11 specimens), raj. Kėdainiai, graves 45 (2 specimens), 50, 54 (2 specimens), 65 (2 specimens), 152 (3 specimens), 332 – V. Kazakevičius 1993: 143–144, 146, 152, 166, Figs. 130: 8, 10; 136: 7; 137: 13; 193: 2–3, 13; 201: 14; 207: 9.

Bronze specimens with plain ferrule or without ferrule:

DOLLKEIM/KOVROVO CULTURE:

Kovrovo/Dollkeim (2 specimens), raj. Zelenogradsk, grave 161, 164 – O. Tischler & H. Kemke 1902: 24, Pl. XI, 15, 18.

Podgórze/Huntenberg (2 specimens), voiv. Warmińsko-Mazurskie, graves 5, 24 – F. E. Peiser 1919b: 338, 343.

fomer **Warnikam** (4 specimens), raj. Bagrationovsk, graves 15, 31, 60, 67 – O. Tischler & H. Kemke 1902: 42, 44 Pl. XI, 4; N. Åberg 1919: 161, 165.

BOGACZEWO CULTURE:

Paprotki Kolonia/Paprotken, voiv. Warmińsko-Mazurskie, object 1006 – unpublished materials from the cemetery excavated by M. Karczewska, M. Karczewski and the author.

Wyszembork/Weißsenburg (2 specimens), voiv. Warmińsko-Mazurskie, object 222, loose find – unpublished materials from the cemetery excavated by W. Nowakowski and P. Szymański.

WEST LITHUANIAN GROUP:

Šernai/Schernen, r. Klaipėda, grave 88 – A. Bezzenberger 1892: 162, Fig. 103.

Kapsēda, r. Liepāja, Latvia – H. Moora 1929: 60, Pl. XXX, 11.

SUDOVIAN CULTURE, GOŁDAP AREA:

Boćwinka/Alt-Bodschwingken (5 specimens), voiv. Warmińsko-Mazurskie, barrow II grave 2, barrow V grave 2, barrow XV grave 9a (2 specimens), barrow XVIII grave 1 – K. Stadie 1919b: 423, 426, 434, 438.

Grunajki/Gruneyken (2 specimens), voiv. Warmińsko-Mazurskie, barrow B grave 2, loose find – O. Tischler 1879: 229, Pl. IV, 2; K. Stadie 1919a: 410.

ELBLĄG GROUP:

Młoteczno/Hammersdorf, voiv. Warmińsko-Mazurskie, object 46 – W. Ziemlińska-Odojowa 1991: 105, Fig. 6.

CENTRAL LITHUANIAN GROUP:

Plinkaigalis (4 specimens), raj. Kėdainiai, graves 45, 88, 327, 332 – V. Kazakevičius 1993: 143, 147, 166, Figs. 121: 5; 130: 7; 193: 9; 207: 9.

EAST LITHUANIAN BARROWS CULTURE:

Krikštonys, raj. Lazdiniai, Lithuania, grave 1 – P. Kulikauskas 1959: 74–77, Fig. 4: 5.

Conclusions

The Samland horizon analysed in the present chapter encompasses star-footed brooches and belt sets consisting of tongue-shaped strap ends type Samland and buckles with a metope at the spike base and rectangular ferrule. All feature an elaborate all over stamp ornament on the strap ends, ferrules of buckles and the foot and metope of the fibulae. The recurring stamp motifs include first of all, the star, multiconcentric circles and semicircles, filled triangles and S-shaped stamps.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Grądy K. 65	●				●											
Kovrovo 140			●	●	●	●	●									
Kovrovo 124				●	●	●										
Greibau 63					●	●		●	●							
Kovrovo 162				●			●	●		●						
Lyublino 41					●			●								
Grebieten S.43					●	●		●	●		●	●				
Greibau 211											●	●				
Kovrovo 161				●	●	●	●	●		●		●				
Kovrovo 164					●			●				●				
Warnikam 15								●				●				
Warnikam 30								●		●	●	●	●			
Warnikam 31					●			●				●	●			
Kovrovo 178					●							●		●		
Kovrovo 146					●	●						●		●		
Kovrovo 163					●	●	●					●		●		
Warnikam 60		●			●							●		●	●	
Podgórze 23												●				●

Fig. 31. Combination diagram for graves with elements of Samland horizon. Elements of Samland horizon are shadowed. 1. *Armbrustfibel mit angesetztem Nadelhalter*; 2. trapeze-footed fibula; 3. crossbow fibula decorated by wire; 4. cubooktaedric bead; 5. tongue-shaped strap end type Samland; 6. bucket-shaped urn (*Eimerurn*); 7. drum-shaped amber bead; 8. star-footed fibula; 9. conical shield-boss/semicircular shield-boss; 10. pipe-like pendant; 11. spur group VIII–IX; 12. buckle with a metope at the spike base; 13. Murga jug; 14. crossbow fibula type Schönwarling/Skowarcz; 15. crossbow fibula with a crosspiece on the foot (*Schlußkreuzfibel*); 16. twisted necklace.

The discussed artefacts are bronze with silver inlay. Such precious metal specimens were apparently associated with the higher ranks of the Balt society. They occur only in well-furnished graves, both female and male.

Individual elements of the Samland horizon have an overlapping distribution range in the Balt territory (Figs. 27–28, 30). The main concentration occurs in the Dollkeim/Kovrovo Culture, in Samland Peninsula and Natangen. The belt sets in question has even been regarded as an ethnic indicator of the Dollkeim/Kovrovo Culture costume (R. Madyda-Legutko 1987a: 34). A substantial number of Samland horizon artefacts is also recorded in the Bogaczewo Culture and in Gołdap area of Sudovian Culture. Only the precious star-footed

brooches are known outside these territories, with concentrations in West Lithuanian and Lower Nemunas Groups and isolated finds in the eastern Baltic zone, as well as on Öland and Bornholm. Apart from the precious metal elements of Samland horizon there is also a number of their imitations lacking silver inlay featuring a simplified ornament or lacking any decoration. Spatial distribution of such imitations is generally wider than that of the precious metal ones. This applies especially to star-footed fibulae and tongue-shaped strap ends; the former spread to the east, while the latter to the south. Both of them underwent local modifications giving rise to local variations.

All elements of the Samland horizon have been treated by scholars as indicators of Early Migration Period in the Balt lands (K. Godłowski 1970: Pl. XII; 1974: 71–73, Pl. VII; W. Nowakowski 1996: 15–54). According to latest chronological studies, based on correspondence analysis, undertaken by W. Nowakowski for Samland, the artefacts in question are typical for his phase 5. of the Dollkeim/Kovrovo Culture. This phase is synchronised with the interregional phase D (W. Nowakowski 1996: Tables XVI a–d).

The combination diagram (Fig. 31) was elaborated for graves recorded in the main distribution centre of artefacts in question, namely the Dollkeim/Kovrovo Culture. It shows only the exquisite metal elements of the Samland horizon with silver inlay and rich stamp decoration. These co-occur with each other as well as with other artefacts characteristic for phase D, like spurs group VIII–IX according to K. Godłowski (1974: 71–72, Pl. VII), conical or semicircular shield-bosses, type Schönwarling/Skowarcz crossbow brooches, long slender cylindrical pendants, drum-shaped amber beads. Besides the artefacts typical for the Early Migration Period there are also the specimens characteristic for earlier phases of the Dollkeim/Kovrovo Culture, namely *Armbrustfibel mit angesetztem Nadelhalter* (similar to A.172), bucket-shaped urns (*Eimerurnen*) and trapeze-footed brooches. A special position is represented by grave 60 at Warnikam which produced both a trapeze-footed fibula and such a late element as a crossbow brooch with a crosspiece on the foot (*Schlußkreuzfibel*). While the latter type of fibula is generally characteristic for Late Migration Period the item from Warnikam seems to be one of the earlier specimens of this type. Its proportions and the presence of a metope on top of the bow are untypical for Late Migration Period finds. The latest assemblage appears to be grave 23 at Podgórze/Huntenberg where a precious metal element of the Samland horizon co-occurs with a twisted necklace, characteristic for the beginnings of phase E (comp. O. Tischler & H. Kemke 1902: Pl. XV, 9–10, 13).

The simplified variants of the Samland horizon, basically a chronological indicator of phase D, persist in use longer, the latest being dated to early phase E. This is particularly true of the star-footed brooches (see detailed discussion Chapter 2.3.).

The absolute dating of the precious metal Samland horizon may be based on *"foederaten"* Murga type jugs recorded in graves 30 and 31 at Warnikam. Pottery in the Murga style, including jugs, was widespread in south-eastern Europe, occurring in concentrations in Moravia and south-western Slovakia (J. Tejral 1982: 156–160, Figs. 58–59; 1986: 123–126, Figs. 12: 3, 6–7; 13: 1; 14–15; 16: 3–4, 6–8; K. Pieta 1988: 391–394). Vessels in question were found mostly in graves and settlements, but at Bíňa, Slovakia, a jug of this type served as a container for a hoard of *solidi*. It held 108 coins, the latest a Theodosius II issue struck in 443 (J. Tejral 1988: 286). Murga type pottery has been regarded as an indicator of horizon D_2/D_3, according to J. Tejral, and has been dated to the second and third quarter of the 5th c. (J. Tejral 1988: 273–286, 295). Such a chronology applies to the developed forms of the Samland horizon (Warnikam, graves 30, 31).

Synchronisation of the Balt-Scandinavian chronology

As has already been noted in literature (K. Godłowski 1974: 83–85; W. Nowakowski 1996: 53–54) the Sösdala style and the Balt star ornamentation appear to be the best way of

correlating the Balt-Scandinavian chronology of the Early Migration Period. This assumption might be justified provided both these styles are made compatible. The approach suggested by the author in the present Chapter makes is possible to solve this problem and enable such a synchronisation. The author introduces the terms the "Sösdala horizon" and the "Samland horizon" to denote horizons of certain artefacts featuring stamped decoration, analysed in their archaeological rather than only the stylistic context.

Such an analysis makes it possible to establish the relative chronological sequence of individual artefacts within each horizon. Three phases of both the Sösdala and Samland horizons may be distinguished (Fig. 32). Phase 1. of the Samland horizon is represented by the classical star-footed brooches and belt sets consisting of buckles with a metope at the spike base and tongue-shaped strap ends type Samland. Such belt sets are characteristic also for phase 2., besides the developed forms of star-footed fibulae. The latest brooches with a star-like foot introduce phase 3. of the Samland horizon.

The beginning of the Scandinavian Sösdala horizon is designated by type 2 sheet fibulae (without animal profile representation) as well as biconical and shield-like pendants. The latter two occur in the subsequent phase 2., when sheet fibulae with animals in profile (type 3) and pelta-shaped pendants appear. Phase 3. of the Sösdala horizon is represented by the latest sheet fibulae with animal profile representations.

This relative chronology may be combined with absolute dating based on Scandinavian assemblages containing coins discussed earlier. The Torstorp Vesterby grave produced specimens characteristic for the Sösdala horizon, phase 1., co-occurring with a Constantius II *siliqua* (340–351). Phase 2. finds may be dated basing on the Høstentorp hoard, where the latest coin derives from the close of the 4th and beginning of the 5th c.

While the Balt artefacts of the Samland horizon did not co-occur with coins their absolute chronology could be established indirectly basing on the site at Warnikam, graves 30, 31, containing Murga type jugs (see discussion above) and to the Frombork hoard. This hoard, dated by a Theodosius II *solidus* (AD 430), included Schönwarling/Skowarcz and Dollkeim/Kovrovo type brooches. The same types have been produced by assemblages containing the specimens of the Samland horizon characteristic for its phase 2. The latter may be correlated with phase 2. of the Sösdala horizon (see the Høstentorp hoard).

The compatible relative phasing of both horizons combined with their absolute chronology appears to be a reasonable tool for further synchronisation studies. Basing on such a framework it was possible to establish the sequences of both Scandinavian and Balt artefacts correlated to each other (Pl. LIX). The diagram primarily includes ornaments analysed in the present study (see Chapter 2.) and their archaeological context. It was possible to distinguish six phases: phase 0. preceding the appearance of the Samland and Sösdala horizons, phases 1.–3. synchronic with these horizons and phases 4.–5. succeeding the horizons in question.

Phase 0. in the Balt lands is characterised by the trapeze-footed crossbow brooches as well as by the earliest Schönwarling/Skowarcz and Dollkeim/Kovrovo type brooches. Scandinavian phase 0. is represented by the earliest sheet fibulae, the Gudumholm and Nydam brooches. Phase 1. introduces both the Sösdala and Samland horizons. The classical star-footed brooches and belt sets consisting of buckles with a metope at the spike base and the tongue-shaped and bow-curved strap ends appeared in the Balt lands. Type Schönwarling/Skowarcz and Dollkeim/Kovrovo brooches were still in use, being associated with weapons such as domed shield bosses and spearheads similar to types XIII–XIV, according to P. Kaczanowski (1995). Among Scandinavian artefacts of phase 1. there are sheet fibulae type 2, shield-like and biconical pendants, Schönwarling/Skowarcz and Bornholm type brooches as well as the intermediate variant of Dollkeim/Kovorovo type fibulae. This phase is also represented by Gotlandic open-work strap-ends and brooches with a triangular foot and knobs on the head as well as by bow fibulae with a semicircular head, clasp button form B1 and combs with a bell-shaped handle.

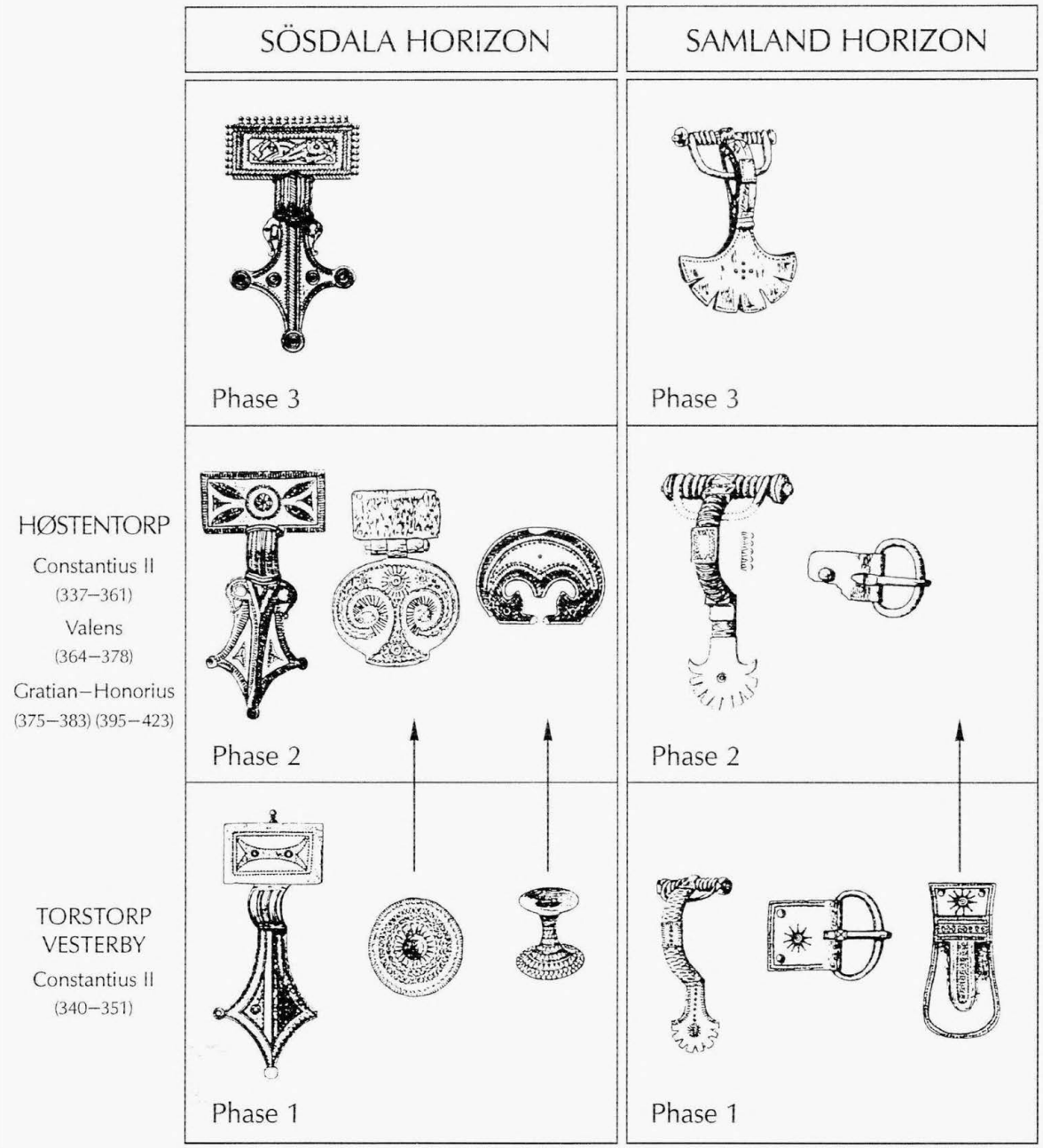

Fig. 32. A correlation diagram of Sösdala and Samland horizons.

Phase 2. in the Balt lands registers the continuation of belt sets described above and Schönwarling/Skowarcz and Dollkeim/Kovrovo brooches, including specimens with relief decoration. There are also developed star-footed fibulae. Among the weapons appear spurs of groups VIII–IX, according to K. Godłowski. Murga type jugs and Snartemo type glass beakers co-occur with artefacts characteristic for phase 2. The latter also co-exist with Scandinavian specimens assigned to phase 2. In Scandinavia phase 2. introduces fibulae of the type Dollkeim/Kovrovo, type 3 sheet brooches (with animal in profile), pelta-shaped pendants, bucket-shaped pots and cruciform fibulae.

Among the latter there are specimens with a star- or spade-like foot as well as spade-footed brooches type Horr/Kvassheim. Fibulae type Bornholm and shield-like and biconical pendants still persist in use. Additional elements of costume include buckles with an thickened oval frame and rectangular ferrule. Type Snartemo sword scabbards, biconical shield-bosses with a short spike, lance and spearheads represent the weaponry of the phase in question.

Phase 3. is characterised by the latest star-footed brooches in the Balt lands, while in Scandinavia there are the latest type 3 sheet fibulae (with animal in profile). Scandinavian phase 3. is also marked by the appearance of relief brooches with animal in profile, star- and spade-footed cruciform fibulae, bird pins, bucket-shaped pots, narrow tongue-shaped strap ends and square-headed brooches type Horr/Kvassheim. Among the Balt material typical for phase 4. are the latest crossbow fibulae of the type Dollkeim/Kovrovo, twisted necklaces, bottle-shaped (*flaschenförmige*) vessels, bracelets with thickened terminals and the earliest bow brooches (*Bügelfibeln mit dreilappiger Kopfplatte*). In Scandinavia phase 4. produces fibulae type Horr/Kvassheim and their derivative with a relief ornament as well as relief brooches and D-bracteats.

Phase 5. is represented in the Balt lands by the latest variant of spade-footed fibulae (type IIIB), Daumen/Tumiany brooches and bow specimens (*Bügelfibeln*). Other elements of costume include belt sets consisting of buckles with a cross on the tongue (*Kreuzdornschnalle*) and narrow, lancet-shaped strap ends (*lanzettförmige Riemenzungen*). Scandinavian phase 5. introduces the button-on-bow fibulae and the equal-armed ones. There are also the latest specimens type Horr/Kvassheim.

The above sequence of phases may be fitted within the interregional chronological framework (see Pls. I–II, LIX). In the Balt lands, phase 0. may be synchronised with phase C_3, while phases 1.–3. correspond to phase D. Phase 4. seems to be transitional, described as phase D/E. Phase 5. may be correlated with phase E. The phasing of Scandinavian material has been compared to the Danish chronological system[27]. Phase 0. may be synchronised with phase C_3. Phase 1. corresponds with the transitional stage between phases C_3 and Early Germanic Iron Age. Phases 2.–4. may be correlated with Early Germanic Iron Age, while phase 5. – with Late Germanic Iron Age.

The phasing proposed by the author offers insights on a slightly different rhythm of cultural development on two sides of the Baltic Sea. The transition between phases C_3 and D is well visible in the Balt lands while in Scandinavia it is less clear. On the other hand it is easy to distinguish Early and Late Germanic Iron Age materials while the transition between phases D and E in the Balt lands remains uncertain.

The correlation of Balt-Scandinavian materials reveals that Schönwarling/Skowarcz and Dollkeim/Kovrovo brooches appeared in Scandinavia slightly earlier than was suggested in the literature (comp. B. Nerman 1935). The same remark applies to star- and spade-footed cruciform fibulae (comp. J. Reichstein 1975).

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[27] The Danish terminology was choosen, because the latest chronological studies of Scandinavian Migration Period material were first produced by Danish archaeologists (see Chapter 1.).

4. Conclusions. The élite and the middle class – society around the Baltic Sea

The Baltic Sea region is recognised as one of the most stable settlement areas in late antiquity which makes any regional, chronological or stylistic studies very attractive. At the same time this wide geographical perspective poses a great challenge for the researcher. The vast area of research is not homogeneous from the point of ethnic identity, cultural tradition, finds situation or the research tradition. On the other hand, such studies provide one with quite unique evidence of contact and influences over longer and shorter distances. Last, but not least, was the problem of social structure around the Baltic Sea, especially the question whether social development on both sides of the sea was paralleled.

Before discussing any of these problems it was necessary to find methodologically and source-critically viable path which allowing a comparison of so dissimilar territories. The author selected the most widespread phenomenon in Europe of the Early Migration Period, namely stamp ornamentation. But instead of using the rather amorphous styles the approach was to identify and analyse horizons of specific artefacts decorated in these styles. The Sösdala and Samland horizons proved useful as a framework for building parallel sequences of artefacts in Scandinavia and in the Balt lands. In this way the dilemma of incompatibility of different regions was solved and furnishing a basis for a reasonable interpretation.

The main subject of this work is exchange of ideas across the Baltic, which appears to reflect "deeper", creative links between people. Research based on jewellery types and stylistic analysis. Ornaments, characterised by greatest typological variation, offer interesting insight into the transmission of motifs denoting direct or indirect contact between workshops and local populations. Jewellery being a part of costume demonstrates the ways in which society signifies its ethnicity or political affiliation.

The Dollkeim/Kovrovo Culture perspective, with its centre in Samland Peninsula, was chosen for studying contacts across the Baltic Sea. The main reason is the fact that processes of integration affecting the Baltic region in the Migration Period admittedly seem to have bypassed the Balt territories and the entire eastern zone of the Baltic Sea. The phenomenon of circulation and thesaurization of gold in the 5th and the first half of 6th c., with the impressive number of finds in the southern and western zone of the Baltic stands in obvious contrast to their absence in the eastern region. It would be far from correct, however, to assume that the Balt lands were in those days on the periphery. On the contrary, they functioned in close association with other regions of the Baltic coast and only the plane of these relations was widely different.

Crossbow brooches with a long narrow foot, types Schönwarling/Skowarcz and Dollkeim/Kovrovo, appear to be a significant exemplification of such a relationship, linking eastern Scandinavia, especially the Baltic islands with the Balt lands. They became one of the most common ornaments widespread from Öland and Gotland through Samland to northern Estonia. Schönwarling/Skowarcz and Dollkeim/Kovrovo fibulae occurred both in male (e.g. Kovrovo, graves 109, 128, 146; Salands and Barshaldershed, Gotland) and female graves (e.g. Kovrovo, grave 115; Warnikam, grave 41; Kälder, Gotland; Kobbeå, grave 11, Bornholm)

which may be regarded as moderately equipped graves. It appears that brooches in question belonged to middle class costume.

The stylistic analysis made by the author reveals the transmission of the pattern around the Baltic Sea as well as the interregional and local features of these ornaments. Their detailed analysis offers insight into the interchange between workshops on both sides of the Baltic Sea. On the one hand it is possible to observe common ideas linking the production centres as, for example caterpillar-like decoration. On the other hand it is interesting to consider how foreign patterns were assimilated and transformed in a new environment becoming very different from the original model, e.g. relief ornament in the Balt lands or the presence of a double chord and bow metope on the Baltic islands. Types Schönwarling/Skowarcz and Dollkeim/Kovrovo underwent local modification giving rise to local variations such as type Bornholm, characteristic exclusively for this island or the Lithuanian variant persisting in use in the West and Central Lithuanian Groups.

It is noteworthy to observe that Schönwarling/Skowarcz brooches, originating in the Dollkeim/Kovrovo Culture, reveal greatest similarity among the specimens from the Dollkeim/Kovrovo area, Öland and Gotland. In this case the population of Samland and its surrounding region maintained closer links with the people across the Baltic Sea than with its Balt cousins. Such a tendency finds additional expression in other categories of artefacts (trapeze-footed brooches; precious elements of the Samland horizon) and in a somewhat larger area. The Dollkeim/Kovrovo Culture and territories traditionally associated with it like the Bogaczewo Culture, the West Lithuanian and the Lower Nemunas Groups and the Gołdap area of Sudovian Culture apparently have less in common with the Balt hinterland than with their Scandinavian counterparts. The question arises how did the people of the south-eastern Baltic zone perceive the limits of the *orbis interior* and the line where the outer world began, the alien and unreal *orbis exterior* described by M. Eliade (1957; 1993: 53–88) as an unknown and shapeless expanse, a mysterious and terrible world of demons, ghosts, the dead and aliens – full of chaos, death and night. The problem of the "native–alien" dichotomy, the question of the confines of the inner world, and of the familiar has long fascinated ethnologists and cultural anthropologists (J. Obrębski 1936; F. Barth 1969). Much interesting insight may be gained from the research done by Ludwik Stomma who studied the ideas concept of the "alien" among peasants of 19th and early 20th century Poland and criteria they used to divide the world into "native" and "alien" (L. Stomma 1986: 29–64). The territorial criterion turned out to be of fundamental importance – "aliens" were people "not from here"; the criteria of ethnic identity ("speakers of a foreign language") or religion ("people of different faith") were much less significant. For instance, a Lithuanian peasant in a village with a mixed Polish-Lithuanian population was perceived as "one of us" (i.e., "native") by his Polish neighbours unlike a Pole coming from a neighbouring village who was "alien".

Obviously it will not do to apply uncritically results of ethnographic research to archaeological reality. But we may imagine that a territorial barrier imposed by geography with the resulting similarity of economy and living conditions may have been more impenetrable than for instance, the barrier of ethnicity. It must have frequently been so felt by the inhabitants of different regions.

The relationship linking together the Baltic islands with Samland discussed here find an additional expression in the case of Sensburg/Mrągowo brooches – a "stylistic experiment" which emerged in Baltic coastal areas as a result of influences coming from both sides of the sea. In these crossbow brooches with a full catch-plate and an animal head on the foot "eastern" construction is combined with "western" animal decoration. They are a good example of far-flung circulation of ideas in the Baltic basin and their rapid modification to suit local tastes and traditions (see the endemic variants as Smørenge on Bornholm and Rubokai along the Nemunas River).

While connections over shorter distances, expressed mostly through ordinary ornaments, imaginably reflect contacts between representatives

of the middle class, longer-distance links relate to exchanges among the élite. The Sösdala style found its exemplification in the horizon of certain artefacts as sheet fibulae, pelta-shaped pendants, ceremonial horse harnesses, shield-like and biconical pendants. This Sösdala horizon is made up of specimens almost exclusively made of silver, gilt silver, bronze with silver inlay or much more rarely gold. They are relatively rare in Scandinavian material and may be regarded as goods of prestige. Their distribution covers almost without exception western and southern Scandinavia, including Jutland, south-western Norway, Västergotland, Sjælland and Scania. The impact of the Sösdala style on Balt decorative tradition gave rise to a local variation of the stamp ornamentation represented by the Samland horizon. It includes star-footed brooches and belt sets consisting of tongue-shaped strap ends type Samland and buckles with a metope at the spike base. They were made of bronze with sheet silver inlay. This type of precious specimens of the Samland horizon concentrate primarily in the Dollkeim/Kovrovo Culture, with the Samland Peninsula as the main centre. They are in evidence only in well-furnished graves, both male and female (comp. Kovrovo, grave 162; Warnikam, graves 30, 31).

It is interesting to consider that both the Sösdala and Samland horizons feature are a number of simplified bronze items which are regarded as imitations of precious metal specimens. We may imagine that local artisans modelled their goods on the silver and gold jewellery of the upper classes and tried to follow the existing fashion trends. The distribution of these imitations remains a local phenomenon. Its scale is much bigger in the eastern Baltic zone possibly reflecting a smaller stratification of the society in that region during the Early Migration Period. Differences in costume of the élite and the lower classes might not have been so apparent and may have been expressed by additional decoration of the same type of ornament rather than by an altogether different type of ornament.

The Sösdala and Samland horizons indicate connections between the members of the élite from western Scandinavia and the Samland Peninsula, but these contacts were not associated with the evidence of exchange between Samland "port of trade" and the principal central place in south-western Scandinavia in the Early Germanic Iron Age such as the complex in the area of Gudme and Lundeborg, on the island of Funen. An isolated loose find of a Balt fibula fragment recorded at Gudme II[1] is an exception to the rule.

A significant example of contacts between the élites is the type Daumen/Tumiany, especially its latest variation, assigned to Late Migration Period (phase E). These *Prachtfibeln* were decorated with a rich relief ornament including a variety of spiral and zigzag motifs, decorated ribs and last, but not least, elements of Style I. Animal heads featured both on the foot and on the head of the fibula. Except for single bronze specimens the brooches in question were made of silver, gilt silver, gilt bronze or bronze with silver. This type apparently became an rare ornament, symbol of prestige confirming the special position of its owner. In the Balt lands Daumen/Tumiany specimens are recorded in richly furnished male graves (e.g. Tumiany, grave 38; Çeistauti, grave 2), while in the Scandinavian environment they appear to be associated with upper class female dress (comp. grave of Scandinavian lady buried in Bavaria). The Bavarian assemblage may be a good confirmation that intermarriage was a factor in the transmission of ornaments and decorative motifs (J. Werner 1970: 75–81). However this factor was probably at work in contacts between the élites of Scandinavia, probably Öland, and the Continent. But the connections linking the members of the Balt and Scandinavian élite were more likely catalysed by itinerant artisans whose presence could be confirmed by a fragment of casting mould for Daumen/Tumiany fibula, found at Helgö.

Intermarriage may perhaps be taken into account in the case of star-footed brooches. Several specimens of this typical Balt ornament were found on Baltic islands, Öland and

[1] A fragment of a bronze crossbow fibula decorated with silver rings and gold sheet (*Armbrustfibel mit Ringgarnitur*). Inv. NM C 999 x 1630. I would like to thank very much Lars Jørgensen who kindly acquainted me with metal detector finds from Gudme.

Bornholm. They represent the precious variation of fibulae in question, with silver inlay and stamp decoration, unmistakably imports from the Balt lands, probably Samland. Imaginably they may have belonged to Balt wives who had married into the Scandinavian élite. However, since all these brooches originate from loose finds this is merely a conjecture.

Crossbow fibulae with a star-like foot remained an element of "foreign" dress, that of foreign noblewomen and as such never succumbed to local modification on the Baltic islands. However they reveal unexpected links of the Balt environment with Norway, especially Rogaland, where they provided an inspiration for the shape of the foot in certain Norwegian cruciform and square-headed brooches. An open question is the route of transmission of the pattern. Apart from the existence of a contact zone which may have been played by the Baltic islands with some participation of Scania. It is also possible that direct and lively interchange linked Balt workshops with their counterparts in Norway (see brooch from Li, Kvinherad, Hordaland).

While in the Balt environment the precious variation of star-footed brooches are limited to the richer graves, Norwegian fibulae with a star- and spade-like foot became an ordinary ornament although they may frequently appear also in well equipped graves (e.g. Lunde, Vest-Agder; Døso, Hordaland). Such cruciform brooches were exclusively made in bronze. An exception appears to be an unusual cruciform specimen with a star-like foot from Bø, Sogn og Fjordane. This bronze fibula is decorated with gilt silver inlay and rich stamp decoration. Silver *Tauschierung* adorns the grooves on the head-knobs, the bow and the ribs in the upper part of the foot. The brooch from Bø is much bigger than other star- and spade-footed cruciform specimens. It was found inside a rich male grave alongside such prestige goods as a gold ring, a spatha, shield boss, silver strap mount and weight.

All jewellery types discussed above and their archaeological context raise the question of stratification within societies around the Baltic Sea. Burial practices reflect an intense competition among the leading families aspiring to a singular social status, which they apparently signalled by the maximum use of resources at burial. This is characteristic in particular of lower stratified open societies (i.e. socially mobile societies) and emphases the fluid, unstable structure of leadership. Had the right to power and position of certain families been established and stabilised there would have been no need to display their economic potential and power through outer manifestation at burial.

While numerous analyses are known of the social structure of Scandinavian and Continental societies in the Migration Period (see comprehensive works of H. Steuer 1982; L. Hedeager 1992) similar studies of Balt or Finnish societies are lacking. The latter practically elude any research of social stratification due to a specific burial practice leaving no distinct graves. Separate enclosures in the tarand cemeteries probably belonged to individual families but no traces of competitive situation have been discovered. This may express social stabilisation in a stratified society or a society in which power was not manifested in the burial custom. Be as it may, social structure of the Finnish people was apparently different from that of the Germanic societies.

The question arises whether this may also be true of the Balt society. An answer may be sought as far back as in Tacitus' *Germania*. When describing the cultural situation in Barbarian Europe in the 1st century AD Tacitus with a flat statement *"Hic Suebia finis!"* [Germ. 46,1] separated the *Aestii* from the definitely non-Germanic "savage" *Fenni* (W. Nowakowski 1992). The latter have been identified with peoples of the woodland zone culture units. There would have been therefore a frontier between the civilisation of sedentary inhabitants of Germania, farmers and stockbreeders, and of the forest hunters-gatherers. In this way, Tacitus would have drawn the borders of Germania basing on a difference in the level of civilisation and divergent lifestyles rather than ethnic affiliation. Although he did remark that the tongue spoken by the *Aestii* was dissimilar this did not stop him from including their lands within Germania. It seems to be possible to identify the

cultural situation from Tacitus time with that one dated to the Migration Period, because of the stable settlement situation on the south-eastern Baltic coast during the first centuries until the appearance of Slavs.

Encouraged by the authority of Tacitus the author proposes to attempt a comparison of the social structure of the Balt peoples with Scandinavian society touching the subject but briefly since it requires a separate comprehensive analysis. The phenomenon of competition among leading families seen in Scandinavia of the Germanic Iron Age (L. Jørgensen 1988; 1990: 84 – 98; K. Høilund Nielsen 1991: 146–147) apparently also affected Balt society. Rich amber deposits may have provoked local families to take control over the use of these resources. The winners in this competition had to demonstrate their economic status as an expression of ownership of the resources they controlled. One of the ways in which the leading families established their position was the use of prestige goods (see K. Ekholm 1972; 1977; J. Friedman & M. Rowlands 1977).

The elements of prestige goods characteristic for the Barbarian Europe have recently been widely discussed by A. Bursche (1998: 205–222; see also C. von Carnap-Bornheim & J. Ilkjær 1996: 349–369, 483–485). Comparing the list of symbols with Balt materials dated to the Early Migration Period it may appears that Balt territory remained outside the system of prestige goods. This assumption is aptly demonstrated by the distribution of gold medallions which does not cover the south-eastern Baltic zone (A. Bursche 1998: 225, Map 1). On the other hand the Balt society may have established its own local symbols of prestige. This role may have been played by the precious components of the Samland horizon. Star-footed fibulae and belt sets decorated with sheet silver and rich stamp ornamentation may have been the means for demonstrating the high status enjoyed by the members of the local leading families. Such a function of sumptuous brooches and elaborate belt sets, although of different design, is known among Germanic society adopted from the Roman Empire (A. Alföldi 1935; W. Jobst 1975: 94; A. Bursche 1998: 210–217). Precious elements of the Samland horizon are primarily in evidence in the entire Samland Peninsula and its surrounding area as well as in the West Lithuanian Group which corresponds to the principal amber resources, and to a lesser degree, the Bogaczewo Culture, participant in the amber trade. It would be interesting to follow the further development of Balt society to see whether it reveals similar tendencies as the ones observed in Scandinavia, namely the centralisation of power.

Basing on Merovingian social structure or inspired by it a central authority with an attached aristocracy of warriors was being established in Scandinavia during the 6th c. (A. Nørgård Jørgensen 1999: 156–175). It found its eloquent expression in a horizon of very rich weapon graves registered at the beginning of Late Germanic Iron Age (A. Nørgård Jørgensen 1991b; L. Jørgensen & A. Nørgård Jørgensen 1997: 86–116). The rich weapon graves of Kobbeå 1, Bækkegård 121 and Glasergård 1 and 2 are relevant examples from Bornholm. In Central Sweden this horizon is represented by early graves from Vendel I, XII and XIV as well as Valsgärde 7 and 8. Kylver, grave 7 and Vallstenarum are evident examples from Gotland, while the Torgård grave confirms the presence of the same horizon in Norway. They are mostly inhumation graves, with cremation burials seen only on Gotland. They contain the remains of the dead man with his full war gear including the spatha, shield, lance-head and seax, or large knife (Fig. 33). The human burial was accompanied by that of a horse in ceremonial harness. Personal equipment included belt sets, small knives, scissors, whetstones, arrow-heads and pottery. Glass vessels, weights or a helmet may also be an additional feature of the grave assemblage (Fig. 33).

The presence of parallel rich weapon graves in the Balt lands could be a confirmation of a similar tendency in the social development on both sides of the Baltic Sea. A number of sumptuous male graves assigned to the beginning of Late Migration Period apparently meet the same criteria (Fig. 33). They include burials such as: Warnikam 1 from the Dollkeim/Kovrovo Culture (O. Tischler & H. Kemke 1902: 41–42, Pls. XV, 9–10, XIII, 2–4, XVII, 9; H. Kemke 1914: 36–37,

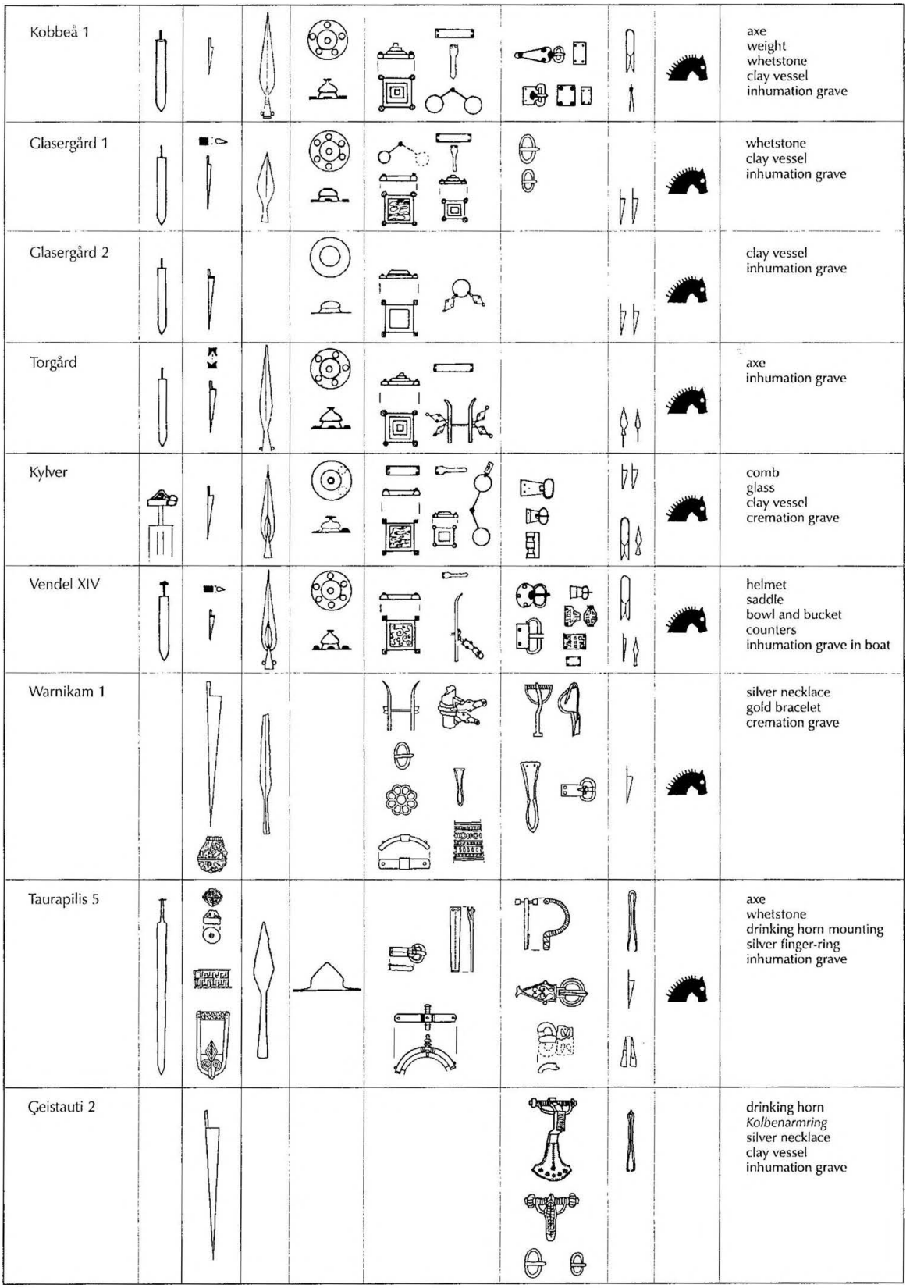

Fig. 33. Combination diagram of grave inventory from rich Scandinavian and Balt weapon burials dated to the beginning of Late Germanic Iron Age/phase D/E (acc. to A. Nørgård Jørgensen 1991b and the author).

Fig. 1; N. Åberg 1919: 105, Fig. 149), Çeistauti 2 from West Lithuanian Group (Latvijas PSR ... 1974: 146, Pl. 40: 16–27) and Taurapilis 5 from East Lithuanian Barrows Culture (J. Werner 1977; A. Tautavičius 1981: 20–33, Figs. 3–34).

The Warnikam cemetery was situated apparently in the coastal area of the Vistula Lagoon. The grave in question produced personal symbols of prestige such as a silver brooch (*Schlußkreuzfibel*), silver neck-ring, gold twisted bracelet, silver spurs as well as silver strap mounts and buckles. Weaponry was represented by a seax with a richly decorated silver hilt and a lance-head. The human cremation burial was associated with an inhumation horse grave with a gilt bronze horse-bit and ceremonial horse harness. The latter included two gold rosettes decorated with garnets. A unique element of grave furnishings was represented by fragments of silver sheet (*Preßblech*) decorated in Style I (G. Haseloff 1981: 537–538, Figs. 357–358).

Barrow 5 at Taurapilis, east Lithuania, produced a full war gear including both imported and local elements. The former were represented by a two-edged sword with gilt silver scabbard mountings richly decorated with chip-carving (*Kerbschnitt*). There were also silver as well as silver-and-garnet buckles and strap mounts of a *balteus*. Two lance-heads, a shield and axe completed the set of weapons. A silver ring and silver drinking horn mountings further confirmed the high rank of this man. Besides the inhumation human burial the barrow in question contained a horse skeleton.

The inhumation cemetery at Çeistauti was established on the northern periphery of the West Lithuanian Group in the coastal area of south-western Latvia. Grave 2 contained a silver neckring, silver richly decorated Daumen/Tumiany brooch and a large spade-footed bronze fibula type IIIB with silver inlay. Personal symbols of prestige were supplemented with a bracelet with thickened terminals (*Kolbenarmring*) even though it was made of bronze. A fragment of a drinking horn may have been yet another indicator of the special position of its owner. The surviving weapon was a seax.

Grave assemblages just described stand out visibly among all other deposits in their respective cemeteries dated to the Migration Period. The demonstration of power through deposition of prestige grave goods, luxury items and weapons in the grave was especially evident in comparison to the rest of graves. Materials from other cemeteries from the same period suggest that the competition between the leading families was still in progress and unresolved and had not resulted in the setting up of a central power. This seems to be aptly illustrated by the Plinkaigalis cemetery with a number of rich burials containing silver ornaments and silver drinking horn mountings with no single assemblage superior to the rest.

Warnikam 1, Taurapilis 5 and Çeistauti 2 suggest the existence of a strong central authority. The marks of rank used by the leaders are largely in keeping with the Scandinavian trend. At the same time it appears that the symbols of prestige used by the Balt "minor kings" had been modified to suit the local tradition. While the Scandinavian society shows close correspondence with the Merovingian structure, its Balt counterparts joined the same tendency but preserving their own habits. It is worth recalling that the centres of power located in the south-western part of the Dollkeim/Kovrovo Culture (Warnikam 1) and the northern periphery of the West Lithuanian Group (Çeistauti 2) retained their importance in Balt territory lands during the succeeding centuries and formed the foundation for the trading centres and central places such as Janów Pomorski – Truso (M. Jagodziński & M. Kasprzycka 1991) and Grobina (B. Nerman 1958).

Despite the apparent relatively isolated situation of Balts in Barbarian Europe, analyses of many finds assigned to the Migration Period reveal close links of that territory with other regions of the Baltic coast and even beyond, such as remote Norway. This strongly suggests that Balt society was undergoing processes of social transformation of its own, on a par with ones affecting their Scandinavian neighbours. The nature of this transition has yet to be painstakingly pieced together from the fragmentary and elusive archaeological evidence.

Streszczenie

Od Sambii do Rogalandu. Kontakty między wschodnią a zachodnią strefą Bałtyku we wczesnym okresie wędrówek ludów

1. Wprowadzenie

Celem niniejszej pracy jest analiza kontaktów ziem bałtyjskich z terenami ościennymi, przede wszystkim Skandynawią, we wczesnej fazie okresu wędrówek ludów. Zakres terytorialny pracy obejmuje rozległy obszar od Sambii i Pomorza po Lofoty oraz od Rogalandu w zachodniej Norwegii po Finlandię. Powiązania bałtyjsko-skandynawskie badane są na podstawie ponad 1200 ozdób, przede wszystkim zapinek jako tej kategorii zabytków, która wykazuje dużą zmienność typologiczną, stylistyczną i chronologiczną. Daje to szerokie możliwości analizy wzajemnych kontaktów między warsztatami, a w szerszej perspektywie – społecznościami zamieszkującymi wybrzeża Bałtyku.

Obszar ten jest bardzo zróżnicowany pod względem etnicznym i kulturowym, a także tradycji klasyfikacji źródeł archeologicznych oraz stanu bazy źródłowej. Ta część ziem bałtyjskich, która przed 1945 r. należała do Prus Wschodnich, ma zdziesiątkowane zasoby muzealne na skutek zniszczeń II wojny światowej. Bardzo często dysponujemy jedynie listą zabytków z danego stanowiska bez żadnych informacji o kontekście, w jakim zostały odkryte. W dużej mierze podobny charakter ma większość znalezisk szwedzkich i duńskich datowanych na wczesny okres wędrówek ludów. Te pierwsze pochodzą często z XIX-wiecznych kolekcji, przy czym dotyczy to szczególnie zabytków z Gotlandii i Olandii. W przypadku Danii ostatnich kilkanaście lat przyniosło znaczny przyrost materiałów pozyskanych przy użyciu wykrywacza metali. Zupełnie inny charakter mają zasoby źródłowe Norwegii, gdzie dominującą kategorią są dobrze wyposażone zespoły grobowe. Podobnie wygląda sytuacja na Litwie i Łotwie. Takie zróżnicowanie bazy źródłowej wymaga wypracowania właściwej metody analizy, która pozwoli na uwzględnienie także materiałów niekompletnych. Podstawowym narzędziem jest analiza morfologiczna i stylistyczna, oparta o jasne kryteria typologiczne.

Chcąc porównywać materiały z tak rozległego obszaru trzeba uwzględnić nie tylko zróżnicowanie bazy źródłowej, ale także różne metody klasyfikacji kulturowej, stosowane przez archeologów z Polski, Litwy, Łotwy, Estonii, Finlandii, Szwecji, Danii i Norwegii. Głównym zadaniem tej pracy było znalezienie wspólnego mianownika, który pozwoliłby na pełną analizę wzajemnych powiązań tak różnych etnicznie i kulturowo regionów, o bardzo różnej tradycji badawczej.

Jednym z podstawowych problemów metodycznych jest ogromna różnorodność systemów chronologicznych stosowanych dla basenu Bałtyku. Tymczasem dla uchwycenia relacji między interesującymi nas obszarami konieczne jest jak najbardziej precyzyjne skorelowanie datowania poszczególnych kategorii zabytków. W pracy zaprezentowano osiem systemów chronologicznych uwzględniających wczesną fazę okresu wędrówek ludów (ryc. 1, tabl. I–II). Dla Gotlandii, ale w pewnej mierze także dla innych obszarów Skandynawii, aktualny pozostaje system B. Nermana (1935). Okres VI (400–550/600 r. n.e.), częściowo synchroniczny z interesującym nas przedziałem czasowym, wyznaczają m.in. fibule z guzkami na główce i trójkątną nóżką obok kuszowatych zapinek z długą, wąską nóżką i pełną pochewką.

E. Bakka (1973; 1977) stworzył system chronologiczny dla okresu wędrówek ludów w Norwegii oparty o zestaw zabytków (brakteaty A–D, zapinki blaszane, reliefowe i krzyżowe) oraz style ornamentacyjne (Sösdala, Nydam, styl I). Wydzielił cztery stadia, które obejmują ramy czasowe od około 400 r. do około 575 r. n.e. Ostatnio prace nad norweską chronologią prowadziła E. Straume (1987), która uznała horyzont zapinek krzyżowych za wyznaczający okres wędrówek ludów. Wydzieliła dwie fazy – D_1 i D_2, dla których charakterystyczne są odpowiednio style Sösdala i Nydam oraz Sjörup i styl I.

Ogólne spojrzenie na chronologię okresu wędrówek ludów w Skandynawii dają prace U. Lund Hansen (1988; 1992; 1993; 1994). Początek okresu wędrówek ludów (= wczesny okres germański = *Early Germanic Iron Age*) wyznacza przekształcenie zapinek typu Nydam w formy krzyżowe oraz pojawienie się młodszych fibul blaszanych z przedstawieniami główek zwierząt w profilu. Granica między wczesnym a późnym okresem germańskim przebiega około 520/530 n.e.

Najnowszy system chronologiczny dla późnego okresu rzymskiego i wczesnego okresu germańskiego na Bornholmie opracował L. Jørgensen (1989). Wczesny okres germański obejmują fazy 7. i 8., co w chronologii absolutnej odpowiada czasom między 350/375 a 520 r. Fazę 7. wyznaczają m.in. zapinki kuszowate z długą nóżką i guzkiem na główce, a fazę 8. fibule reliefowe.

Nowoczesne systemy chronologiczne dla ziem bałtyjskich opierają się o system środkowoeuropejskiej chronologii względnej O. Tischlera (por. O. Tischler 1879; O. Tischler & H. Kemke 1902) i zostały opracowane przez K. Godłowskiego (1970; 1974; 1981) i W. Nowakowskiego (1996). Obaj wyznaczają początek wczesnego okresu wędrówek ludów (faza D) poprzez pojawienie się horyzontu zabytków zdobionych stempelkami – zapinek z gwiaździstą nóżką, języczkowatych okuć końca pasa oraz sprzączek z pogrubioną, owalną ramą i metopą. Początek fazy D przypada na około 350/375, koniec na około 450/475 n.e. Opracowania K. Godłowskiego i W. Nowakowskiego dotyczą przede wszystkim materiałów z zachodniej części ziem bałtyjskich, ale można je wykorzystywać także dla innych obszarów bałtyjskich. Archeolodzy litewscy i łotewscy nie stworzyli dotychczas systemu chronologii względnej opartej na współwystępowaniu zabytków w zwartych zespołach grobowych.

Kolejny region wokół Bałtyku, który ma własny system chronologii względnej to terytorium grupy dębczyńskiej na Pomorzu. H. Machajewski (1992a) wydzielił dwie fazy jej rozwoju: wczesną (= I = późny okres wpływów rzymskich) i późną (= II = okres wędrówek ludów). Dla interesującej nas fazy II charakterystyczne są późne warianty zapinek z guzkami na główce (*Bügelknopffibeln*), dziobowate okucia końca pasa, a także brakteaty typu C i monety Anastazjusza.

Synchronizacja przedstawionych powyżej systemów chronologicznych to jedno z ważnych zadań tej pracy. Bez możliwości jak najdokładniejszego uchwycenia w czasie różnych zjawisk na różnych obszarach nie można bowiem przeprowadzić prawidłowej analizy wzajemnych powiązań kulturowych ziem położonych wokół Bałtyku. Kwestia korelacji chronologii bałtyjsko-skandynawskiej pozostawała na ogół na marginesie zainteresowań badaczy skandynawskich. We wschodniej strefie Bałtyku próby takie czynili K. Godłowski i W. Nowakowski, synchronizując bałtyjski horyzont zabytków ze stempelkami ze skandynawskim stylem Sösdala. Próby te jednak nie spełniały swego zadania, ponieważ usiłowano skorelować dwa zupełnie różne zjawiska – z jednej strony horyzont konkretnych zabytków, z drugiej nie do końca zdefiniowany, amorficzny styl ornamentacyjny.

2. Materiał

2.1. Basen Bałtyku we wczesnym okresie wędrówek ludów

Przy całym zróżnicowaniu ziem bałtyjskich, fińskich i germańskich położonych w basenie Bałtyku można wskazać ich kilka cech wspólnych. Jedną z nich jest kontynuacja tradycji późnorzymskich, przy czym dla niektórych regionów granica chronologiczna między późnym okresem

wpływów rzymskich a okresem wędrówek ludów jest nieostra. Inną wspólną cechą fazy D jest zmniejszenie się liczby grobów i zubożenie ich wyposażenia, chociaż zjawisko to dotyczy poszczególnych regionów w różnych stopniu. W porównaniu z innymi obszarami Europy basen Bałtyku wykazuje znaczną stabilność osadnictwa we wczesnej fazie okresu wędrówek ludów.

Jednym z terytoriów, których nie dotknęły perturbacje niespokojnej epoki są ziemie bałtyjskie położone na wschód od dolnej Wisły, między Pasłęką a dorzeczem Dźwiny. Różnice w obrządku pogrzebowym oraz w zestawie charakterystycznych zabytków pozwoliły wydzielić na tym rozległym obszarze kilka kultur i grup kulturowych (J. Okulicz 1973; A. Tautavičius 1980; 1996; W. Nowakowski 1991; 1996). Są to (ryc. 2): kultura Dollkeim/Kovrovo na Sambii i w dorzeczu Pregoły, kultura bogaczewska na Mazurach, grupa zachodniolitewska wzdłuż zachodniego wybrzeża Litwy aż do południowo-zachodniej Łotwy, grupa dolnoniemeńska, grupa środkowolitewska w dorzeczu rzek Nevėžis (Niewiaża) i Neris (Wilia), grupa cmentarzysk płaskich Żmudzi między rzekami Jurą a Dubisą, grupa cmentarzysk płaskich Zemgalii w basenie Muszy i Lelupy oraz wschodniołotewska grupa cmentarzysk płaskich. Wymienione jednostki kulturowe należą do bałtyjskiej strefy cmentarzysk płaskich. Ponadto na wschód od Wielkich Jezior Mazurskich rozpościera się strefa kurhanowa, do której należą: kultura sudowska i kultura kurhanów wschodniolitewskich (ryc. 2).

Na szczególną uwagę zasługuje kultura Dollkeim/Kovrovo, która we wschodniej strefie Bałtyku pełniła funkcję „*port of trade*", pośrednicząc w rozprzestrzenianiu importów i idei w tej części Europy. Wyjątkowa pozycja kultury Dollkeim/Kovrovo związana była z jednej strony z bogatymi zasobami bursztynu, z drugiej zaś z korzystnym położeniem geograficznym. Uformowała się w końcu I w. n.e. (faza B_{2a}), a jej nieprzerwany rozwój trwał do okresu wczesnośredniowiecznego. Po pewnej recesji w późnym okresie rzymskim kultura Dollkeim/Kovrovo przeżywa kolejny okres szczególnego rozkwitu we wczesnym okresie wędrówek ludów. Rozległy zasięg jej oddziaływań we wschodniej strefie Bałtyku jest doskonale czytelny w szerokim rozprzestrzenieniu typowych dla stroju sambijskiego zapinek z gwiaździstą nóżką i części pasa zdobionych stempelkami nawiązującymi do skandynawskiego stylu Sösdala. Dalekosiężne kontakty kultury Dollkeim/Kovorovo poświadczają także importy z Europy zachodniej i południowo-wschodniej.

Zarówno kultura Dollkeim/Kovrovo, jak i inny bursztynodajny region, grupa zachodniolitewska, a także grupa dolnoniemeńska, grupa środkowolitewska i kultura bogaczewska należą do tych elementów bałtyjskiej strefy cmentarzysk płaskich, których geneza sięga wczesnego okresu wpływów rzymskich. Tamtejsze struktury osadnicze przetrwały do okresu wędrówek ludów i wczesnego średniowiecza. Jedynie w odniesieniu do kultury bogaczewskiej kwestionowano fakt istnienia tej kultury we wczesnej fazie okresu wędrówek ludów. We wcześniejszej literaturze (W. Nowakowski 1995, 20; 1996, mapa 18) dominował pogląd, iż u schyłku okresu późnorzymskiego doszło do kryzysu demograficznego na Mazurach i wyludnienia tego regionu. Został on ponownie zasiedlony przez ludność grupy olsztyńskiej w początkach fazy E bądź na przełomie faz D i E. Tymczasem zebranie wszystkich materiałów datowanych na fazę D z obszaru Mazur i przeanalizowanie ich rozprzestrzenienia dowodzi, że kultura bogaczewska funkcjonowała nieprzerwanie w ciągu wczesnego okresu wędrówek ludów (A. Bitner-Wróblewska 2000a). Zasięg występowania zabytków, które można datować na wczesny okres wędrówek ludów pokrywa się z zasięgiem kultury bogaczewskiej w późnym okresie rzymskim. W fazie D zmienia się charakter pochówków, które lokowane były wówczas płytko pod powierzchnią, a ich wyposażenie ubożeje, podobnie jak w wielu innych regionach wokół Bałtyku. Wpłynęło to w znacznym stopniu na ich stan zachowania i sprawiło, że większość zabytków z tego okresu to materiał luźny. Zmienia się także charakter stroju ludności kultury bogaczewskiej. W przeciwieństwie do okresów wcześniejszych nie sposób wskazać zestawu zabytków typowego dla Mazur w fazie D, bowiem elementy stroju znajdowane na tym obszarze reprezentują formy charakterystyczne dla stroju sambijskiego. Ludność kultury bogaczewskiej

przejęła modę panującą wśród mieszkańców sąsiedniej kultury Dollkeim/Kovrovo, której siła oddziaływania w tym okresie objęła swym zasięgiem całą wschodnią strefę Bałtyku.

We wczesnej fazie okresu wędrówek ludów istotne zmiany miały miejsce na Żmudzi, w Zemgalii i wschodniej Łotwie, gdzie wykształciły się wówczas odrębne jednostki kulturowe, których ludność zaczęła chować swych zmarłych na cmentarzyskach płaskich. Z kolei na rozległym obszarze między Wielkimi Jeziorami Mazurskimi i górnym dorzeczem rzeki Šventoji na przełomie późnego okresu rzymskiego i okresu wędrówek ludów zakończył się proces formowania bałtyjskiej strefy kurhanowej.

Kolejnym momentem ważnych zmian w obrazie kulturowym ziem bałtyjskich był przełom faz D i E, kiedy to na zachodzie miała miejsce ekspansja bałtyjska ku dolnej Wiśle (K. Godłowski 1980, 78–83) i w konsekwencji powstanie grupy elbląskiej, a na południu, na Mazurach, pojawienie się nowej, w pełni rozwiniętej jednostki kulturowej, tzw. grupy olsztyńskiej (W. Nowakowski 1989, tam wcześniejsza literatura). Niesłychanie bogaty inwentarz grupy olsztyńskiej o silnych nawiązaniach do interregionalnej kultury germańskiej okresu wędrówek ludów nie znajduje precedensu w tej części Europy.

Ekspansja bałtyjska w stronę dolnej Wisły jest doskonale czytelna w materiale archeologicznym poprzez pojawienie się w tym regionie nowej kategorii stanowisk w postaci cmentarzysk. Wcześniej w rejonie ujścia Wisły dominowały skarby solidów. Obszar ten należy w okresie wędrówek ludów do rozległej strefy występowania skarbów złotych monet i ozdób, obejmującej poza dolną Wisłą Pomorze, Gotlandię, Olandię, Bornholm oraz w mniejszym stopniu Jutlandię, Wyspy Duńskie, Półwysep Skandynawski i północno-wschodnie Niemcy. Interpretacja zjawiska tezauryzacji złota w zachodniej strefie Bałtyku pozostaje nadal otwartą kwestią. Wydaje się, że przyczyny zakopywania złota były złożone, związane zarówno ze sferą *sacrum*, jak i *profanum* (H. Geisslinger 1967; L. Hedeager 1991), przy czym czynnik kultowy odgrywał niewątpliwie istotną rolę. Nie można wykluczyć, iż skarby złotych ozdób pełniły rolę subsytutów darów grobowych. Zjawisku tezauryzacji złota w tym regionie Europy towarzyszyło bowiem znaczące zmniejszenie się liczby grobów i zubożenie ich wyposażenia.

Jednocześnie nastąpił duży przyrost materiałów pochodzących z osad i datowanych na wczesny okres germański (*Early Germanic Iron Age*). Niektóre z tych osad przekształcają się wówczas w emporia handlowo-rzemieślnicze, ważne centra ekonomiczne prowadzące dalekosiężną wymianę i ożywioną produkcję (S. Jensen & M. Watt 1993). Do takich osad należy Sorte Muld na Bornholmie, Gudme-Lundeborg na Fionii, Helgö w środkowej Szwecji i Uppåkra w Skanii. Pojawienie się takich ośrodków siły i władzy wyznacza także główne centra osadnicze. Wśród nich szczególną uwagę zwraca makroregion południowej Skandynawii jako tradycyjnego pośrednika w dystrybucji importów z Europy zachodniej i południowo-wschodniej.

Z kolei pośrednikiem między wschodnią a zachodnią strefą Bałtyku były wyspy bałtyckie – Gotlandia, Olandia i Bornholm. Ich dogodne położenie geograficzne sprzyjało z jednej strony rozwojowi lokalnych typów zabytków, a z drugiej – adaptacji lub przekształceniom wzorów z obu stron Bałtyku.

Wraz z początkiem późnego okresu germańskiego (*Late Germanic Iron Age*) w społeczeństwie skandynawskim zachodzą istotne zmiany. Nasilenie procesu koncentracji siły i władzy jest doskonale czytelne na cmentarzyskach z tego okresu, gdzie pojawiają się pojedyncze groby kobiece i męskie o bardzo bogatym wyposażeniu. Dobrze zauważalnym zjawiskiem jest unifikacja interregionalnej kultury germańskiej i wykształcenie się elity wojowników (K. Høilund Nielsen 1987; L. Jørgensen & A. Nørgård Jørgensen 1997).

Tego typu procesów nie można zaobserwować we wschodniej strefie basenu Bałtyku, na ziemiach fińskich. Kultura cmentarzysk typu tarand, identyfikowana z plemionami bałtyckich Finów, zajmowała rozległy obszar od Kurlandii poprzez ujście Dźwiny do Estonii i południowej Finlandii (H. Moora 1938, ryc. 90; M. Schmiedehelm 1969; A. Vasks 1997, 57–61, 68–69).

Specyficzny obrządek pogrzebowy cechował brak jednostkowych pochówków. Spalone szczątki zmarłych wraz z wyposażeniem rozsypywane były w obrębie kamiennych prostokątnych obstaw, tzw. tarandów. Kolejne obstawy dostawiano do już istniejących, a całość przykrywana była płaszczem kamiennym i kamienno-ziemnym. Proces formowania się kultury cmentarzysk typu tarand został zakończony we wczesnym okresie rzymskim, a zanik takiego obrządku pogrzebowego datuje się na późny okres wędrówek ludów, chociaż na niektórych cmentarzyskach kontynuowano stare tradycje nieco dłużej.

2.2. Zapinki kuszowate z długą, wąską nóżką. Typ Schönwarling/Skowarcz i jego warianty

Jedną z najbardziej typowych ozdób dla wschodniej strefy Bałtyku i wysp bałtyckich są kuszowate zapinki z długą, wąską nóżką i pełną pochewką A. VI,2. Egzemplarze z krótką pochewką i zwężającą się nóżką, zdobione poprzecznymi żłobkami określane są w literaturze jako typ Schönwarling (M. Schulze-Dörrlamm 1986, 650–652, ryc. 72–74). Przyjęte kryteria, choć bardzo wąskie, prowadzą często do błędnych klasyfikacji. Autorka proponuje zatem przyjąć jako główne kryterium konstrukcję fibul i do omawianego typu, nazwanego przez nią Schönwarling/Skowarcz, zaliczyć wszystkie egzemplarze z długą, wąską nóżką znacznie przedłużoną poza krótką pochewkę (tabl. III, 1–2, 6).

Zapinki takie uległy przekształceniu w fibule z pełną pochewką o długości nóżki, dla których zaproponowano nazwę typ Dollkeim/Kovrovo (tabl. XII, 1–2, 4–8). W ramach tego typu wydzielono wariant pośredni z wydłużoną pochewką, ale krótszą od nóżki (tabl. IX), dobrze ilustrujący przejście od typu Schönwarling/Skowarcz do Dollkeim/Kovrovo. Ewolucja tego ostatniego doprowadziła do powstania wariantu litewskiego, który cechuje obecność dużej metopy na główce i poprzeczki u nasady kabłąka, przy przejściu w nóżkę (tabl. XXVIII, 1–2, 5). Odmienną drogę przekształceń stylistycznych przeszedł typ Schönwarling/Skowarcz na Bornholmie, gdzie doszło do powstania zapinek z długą wypustką na główce, tzw. typu Bornholm (tabl. XXXI, 1, 8).

Fibule typu Schönwarling/Skowarcz, najwcześniejsze typologicznie wśród egzemplarzy z długą, wąską nóżką, koncentrują się przede wszystkim na obszarze kultury Dollkeim/Kovrovo (ryc. 3). Współwystępują tam z zabytkami typowymi dla fazy 5. tej kultury (ryc. 5), choć pojedynczym okazom towarzyszą także zapinki z trapezowato rozszerzoną nóżką, charakterystyczne dla fazy 4. W chronologii absolutnej fazę 5. kultury Dollkeim/Kovrovo można synchronizować z końcem IV i 1. poł. V w. Fibule typu Dollkeim/Kovrovo pozostawały w użyciu nieco dłużej i wiązać je można również z początkiem późnego okresu wędrówek ludów.

Główna koncentracja fibul typu Schönwarling/Skowarcz występuje na Sambii, gdzie prawdopodobnie doszło do wykształcenia tego typu formy, na co wskazuje ich wcześniejsza pozycja chronologiczna. Jednak wzór nowej zapinki rozprzestrzenił się szybko we wschodniej strefie Bałtyku, a także na wyspach bałtyckich, Olandii, Gotlandii i Bornholmie, a późniejszy stylistycznie typ Dollkeim/Kovrovo stał się jedną z najbardziej charakterystycznych ozdób w tej części Europy północnej (ryc. 7). Zapinki tego typu koncentrują się przede wszystkim w zachodniej i środkowej Litwie, choć liczne są także w kulturze Dollkeim/Kovrovo oraz na Olandii i Gotlandii. Ekspansję nowego wzoru ozdoby we wschodnim basenie Bałtyku znakomicie ilustruje przykład kultury cmentarzysk typu tarand, skąd pochodzi jeden egzemplarz zapinki typu Schönwarling/Skowarcz, ale już kilkadziesiąt okazów wariantu z pochewką o długości nóżki.

Analiza stylistyczna fibul kuszowatych z długą, wąską nóżką wykazała ich duże zróżnicowanie wewnętrzne, przy czym można wskazać pewne cechy lokalne, np. różnice wielkości i proporcji między egzemplarzami z Sambii i Olandii a Gotlandii i zachodniej Litwy czy zdobienie stempelkami okazów gotlandzkich. Analiza stylistyczna ujawniła ożywione kontakty między warsztatami z obu stron Bałtyku, o czym może świadczyć rozprzestrzenienie fibul z poprzecznie

żebrowanym kabłąkiem. Ciekawe jest zjawisko adaptacji wzorów z innego kręgu kulturowego, np. obecność ornamentyki wycinanej na zapinkach bałtyjskich, zapożyczonej zapewne ze skandynawskiego stylu Nydam.

Ewolucja stylistyczna fibul kuszowatych z długą nóżką na Bornholmie doprowadziła do powstania tam lokalnej ozdoby, tzw. typu Bornholm, który można traktować jako wyznacznik miejscowego stroju kobiecego. Poza wyspą znaleziono jedynie pojedyncze egzemplarze takich zapinek (ryc. 10), które należy traktować jako importy z Bornholmu, przy czym niektóre z nich mogły znaleźć się tam w posagu bornholmskiej panny młodej.

O ile na Gotlandii, Olandii czy Bornholmie typ Schönwarling/Skowarcz i jego warianty nie podlegały dalszemu rozwojowi stylistycznemu, o tyle w środowisku bałtyjskim zamiłowanie do zapinek kuszowatych znalazło wyraz w dalszym przekształcaniu form z długą nóżką. Ostatecznym rezultatem takich stylistycznych przemian było powstanie zupełnie nowych typów – zapinek z poprzeczką na końcu nóżki (*Schlußkreuzfibeln*) czy fibul szczeblowych (*Armbrustsproßenfibeln*).

2.3. Zapinki kuszowate i krzyżowe z gwiaździstą lub łopatkowatą nóżką

Analiza zapinek z gwiaździstą lub łopatkowatą nóżką o różnej konstrukcji ujawniła nieoczekiwane związki stylistyczne, jakie łączyły Norwegię i ziemie bałtyjskie. Fibule kuszowate z półkoliście rozszerzoną nóżką, wyciętą w ząbki lub bez wycięć (tabl. XXXV) powstały na Sambii i w sąsiedniej Natangii, skąd rozprzestrzeniły się na pozostałe ziemie bałtyjskie i ziemie fińskie. Ze względu na kształt nóżki można wydzielić siedem typów (A. Bitner-Wróblewska 1991a), przy czym dokonana klasyfikacja pozwoliła uchwycić zarówno drogę wędrówki wzoru wzdłuż wschodnich brzegów Bałtyku (ryc. 11), jak i różnice chronologiczne między poszczególnymi typami.

Typ I, najwcześniejszy typologicznie, powstał na peryferii występowania późnorzymskich zapinek z tarczkami (*Schildfibeln*), które zapewne stanowiły inspirację dla ukształtowania łopatkowato rozszerzonej tarczki nóżki. Takie formy stały się z kolei wzorem dla typowo bałtyjskich fibul z gwiaździstą nóżką. Typ II, reprezentujący klasyczne okazy z nóżką wyciętą w ząbki, powstał w kulturze Dollkeim/Kovrovo, gdzie stopniowo ulegał uproszczeniu i degeneracji, co reprezentują typy IV i V. Zapinki z gwiaździstą nóżką podlegały także dalszym stylistycznym przekształceniom, w rezultacie czego powstawały formy lokalne, jak typ III w zachodniej Litwie czy typy VI i VII na ziemiach fińskich. Zapinki z gwiaździstą i łopatkowatą nóżką stanowią zasadniczo wyznacznik fazy D we wschodniej strefie Bałtyku, chociaż najpóźniejsze egzemplarze datować można na początek późnego okresu wędrówek ludów.

Zaledwie kilka okazów znaleziono na zachód od Sambii, przede wszystkim na Olandii, tradycyjnie najbliżej wówczas powiązanej z Sambią, a także w rejonie ujścia Wisły, na Bornholmie i na Gotlandii. Z wyjątkiem tego ostatniego egzemplarza wszystkie pozostałe można traktować jako importy z ziem bałtyjskich. Fibula z Gotlandii stanowi ciekawy przykład adaptacji obcych wzorów do miejscowych przyzwyczajeń. Chociaż moda na kuszowate zapinki z gwiaździstą lub łopatkowatą nóżką nie przyjęła się w środowisku skandynawskim, jednak stała się inspiracją dla ukształtowania niektórych typów norweskich fibul krzyżowych (A. Bitner-Wróblewska 1995).

Zapinki krzyżowe są jedną z najbardziej masowych kategorii ozdób występujących w zachodniej strefie Bałtyku w okresie wędrówek ludów. Typowa fibula krzyżowa ma tarczkę z trzema guzkami na główce i nóżkę zakończoną stylizowaną główką zwierzęcą. Ta bardzo zróżnicowana kategoria ozdób obejmuje szereg typów i wariantów (J. Reichstein 1975; M.-J. Bode 1998), a wśród nich egzemplarze, u których zamiast zwierzęcej główki występuje rozszerzona, półkolista tarczka z rzędem otworków lub nacięć wzdłuż krawędzi (tabl. XLII, 8; XLIII, 1–6, 8–9). Taki sam kształt mają niektóre zapinki z czworokątną tarczką na główce, nazwane przez autorkę typem Horn/Kvassheim (tabl. XLVIII). Zarówno w przypadku fibul krzyżowych, jak i okazów z czworokątną główką łopatkowato ukształtowana nóżka

należy do cech późnych chronologicznie i datowana jest na ogół na stadium III/IV okresu wędrówek ludów w periodyzacji E. Bakki, co można synchronizować z okresem od końca V w. do trzeciej ćwierci wieku VI. Egzemplarze wcześniejsze należą do wyjątków.

Zapinki krzyżowe z gwiaździstą lub łopatkowatą nóżką oraz fibule typu Horr/Kvassheim koncentrują się przede wszystkim w południowo-zachodniej Norwegii, w Rogaland, a także w Hordaland i Vest Agder (ryc. 13–14). Mniejsze skupiska występują wokół Oslo fjordu, wzdłuż zachodniego wybrzeża Norwegii aż do Lofotów. Pojedyncze, rozproszone znaleziska pochodzą ze Szwecji i Danii, co można interpretować jako wyraz wpływów norweskich. Zasadniczo bowiem omawianą kategorię ozdób traktować należy jako element stroju norweskiego w późniejszym odcinku okresu wędrówek ludów. Analiza stylistyczna pozwoliła zwrócić uwagę na lokalne zróżnicowanie tych fibul, np. obecność pary żłobków wzdłuż płaskiego kabłąka jako cechę egzemplarzy z Rogalandu.

Norweskie zapinki z gwiaździstą i łopatkowatą nóżką występują na obszarze stosunkowo odległym od źródła ich stylistycznej inspiracji, czyli ziem bałtyjskich. Kwestią otwartą pozostaje szlak wędrówki wzoru z południowo-wschodnich wybrzeży Bałtyku na zachód. Możliwe, iż rolę pośrednika odegrały wyspy bałtyckie, Gotlandia, Olandia i Bornholm, gdzie występują zarówno kuszowate, jak i krzyżowe fibule z półkolistą tarczką na nóżce. Należy też zwrócić uwagę na znaczenie Helgö jako *port of trade* w tej części północnej Europy, pośredniczącego w wymianie przedmiotów i idei. Wreszcie nie można wykluczyć bezpośrednich kontaktów między południowo-zachodnią Norwegią a Sambią, na co wskazuje kuszowata zapinka z rozszerzoną nóżką z kurhanu w Li, Kvinherad, Hordaland. Magnesem przyciągającym norweskich żeglarzy daleko na wschód mogły być bursztynodajne tereny na Sambii czy w zachodniej Litwie. Liczne znaleziska paciorków bursztynowych w zespołach z okresu wędrówek ludów w Norwegii mogłyby potwierdzać taką hipotezę.

2.4. Zapinki kuszowate ze zwierzęcą główką na nóżce. Typy Sensburg/Mrągowo i Daumen/Tumiany

Omawiane zapinki mają kuszowatą konstrukcję, pełną pochewkę i stylizowaną bądź bardziej realistyczną główkę zwierzęcą na nóżce. Stanowią one stosunkowo rzadką kategorię ozdób występującą w Skandynawii i na ziemiach bałtyjskich. Powstały na peryferiach zasięgów mody na dwa najbardziej popularne typy fibul okresu wędrówek ludów w Europie północnej – zapinek krzyżowych na zachodzie i okazów kuszowatych z długą nóżką na wschodzie. W wyniku połączenia „wschodniej" konstrukcji z „zachodnią" dekoracją zwierzęcą doszło do wytworzenia ozdoby o cechach mieszanych, swoistej hybrydy. Taki efekt mogli osiągnąć jubilerzy z Olandii, wyspy leżącej na skrzyżowaniu stref występowania fibul krzyżowych i kuszowatych z długą nóżką.

Ze względu na duże zróżnicowanie wewnętrzne zapinek kuszowatych ze zwierzęcą główką na nóżce autorka proponuje przyjąć zgeneralizowane kryterium ich dalszej klasyfikacji oparte o brak lub obecność ornamentu reliefowego. Ta cecha wydaje się najistotniejsza zarówno typologicznie, jak i chronologicznie. Egzemplarze bez ornamentu reliefowego nazwano typem Sensburg/Mrągowo (tabl. LII), okazy z reliefową dekoracją – typem Daumen/Tumiany (tabl. LIV, 1–2). Ten ostatni zajmuje późniejszą pozycję chronologiczną niż typ Sensburg/Mrągowo i można go datować zasadniczo na późny okres wędrówek ludów.

Klasyczne zapinki typu Sensburg/Mrągowo z realistycznym przedstawieniem główki zwierzęcej na nóżce występują na Olandii i Bornholmie oraz na Mazurach i w Zemgalii. Daleko spoza basenu Morza Bałtyckiego znany jest egzemplarz z dorzecza środkowego Dniepru (ryc. 15). Typ Sensburg/Mrągowo ma jednak charakter zdecydowanie regionalny, przy czym w warsztatach Litwy czy Bornholmu forma klasyczna uległa przekształceniu w lokalne warianty dostosowane do miejscowych gustów – wariant Smørenge na Bornholmie, warianty Rubokai i letto-litewski na ziemiach

bałtyjskich (ryc. 16). Ten ostatni ulegał dalszym stylistycznym przeobrażeniom i pozostał w użyciu na ziemiach Kurów aż do VII–VIII w.

Wszystkie zapinki typu Sensburg/Mrągowo wykonywano z brązu, podczas gdy zapinki typu Daumen/Tumiany były srebrne, srebrne pozłacane, rzadziej brązowe pozłacane, a zupełnie wyjątkowo wyłącznie brązowe. Ozdoby te, zwłaszcza egzemplarze okazałe (*Prachtfibeln*) można traktować jako symbole prestiżu, podkreślające wyjątkową pozycję właściciela. Fibule typu Daumen/Tumiany były wyrobami jednostkowymi, powstałymi zapewne na indywidualne zamówienie, stąd ich ogromne zróżnicowanie pod względem wielkości, proporcji, ornamentyki, w tym elementów stylu zwierzęcego I, obecności kuszowatej konstrukcji lub jej naśladownictwa, stopnia stylizacji główki zwierzęcej. Omawiane ozdoby zostały znalezione na Mazurach, Sambii, w zachodniej i środkowej Litwie, na Łotwie oraz na Olandii i w Bawarii (ryc. 17). Zapinki typu Daumen/Tumiany mają charakter interregionalny i mogą stanowić znakomite potwierdzenie dalekosiężnych kontaktów między elitami. Grób kobiecy z Altenerding w Bawarii, skąd pochodzi taka fibula wraz z elementami typowego stroju skandynawskiego, jest dobrym przykładem małżeństw zawieranych pomiędzy przedstawicielami elit. Dużą rolę w dalekosiężnych kontaktach odgrywali zapewne wędrowni rzemieślnicy, na co wskazuje fakt odkrycia formy odlewniczej do produkcji zapinek typu Daumen/Tumiany w emporium handlowo-rzemieślniczym w Helgö.

3. Horyzont Sösdala i korelacja bałtyjsko-skandynawskiej chronologii

Ornamentyka stempelkowa w stylu Sösdala-Untersiebenbrunn, wspólna dla wielu obszarów Europy we wczesnej fazie okresu wędrówek ludów, pozostaje najbardziej użytecznym narzędziem do porównywania i synchronizacji różnych materiałów archeologicznych wokół Bałtyku. Należy jednak wypracować inne metody wykorzystania tego narzędzia, aby móc analizować zjawiska nie w pełni dotąd porównywalne.

Styl Sösdala został wydzielony przez J. E. Forssandera (1937) w oparciu o znalezisko gromadne z Sösdala, w Skanii. Znaleziono tam około 280 srebrnych, srebrnych pozłacanych lub brązowych przedmiotów, stanowiących elementy przynajmniej dwóch paradnych rzędów końskich oraz pięciu okuwanych siodeł. Wiele z tych zabytków zdobionych było na całej powierzchni stempelkami, niektóre posiadały ornament główek zwierzęcych ujętych z profilu, umieszczonych wzdłuż krawędzi przedmiotów. W podobnej stylistyce utrzymane są okucia i zawieszki z Fulltofty i Vennebo oraz zapinki blaszane określone jako typ Eidsten-Mejlby. Kolejni badacze próbowali uściślić lub uzupełnić pojęcie stylu Sösdala (O. Voss 1955; U. Lund Hansen 1970; B. Magnus 1975), jednak nadal wymyka się ono jednoznacznemu zdefiniowaniu.

Autorka wprowadziła pojęcie horyzontu Sösdala, rozumianego jako horyzont konkretnych zabytków analizowanych z uwzględnieniem ich kontekstu archeologicznego. Do tego horyzontu zaliczyła następujące kategorie przedmiotów: elementy paradnych uprzęży końskich w stylu eponimicznego znaleziska w Sösdala, zapinki blaszane oraz pelta-kształtne, tarczowate i dwustożkowate zawieszki. Zabytki te, wykonane na ogół ze srebra, często pozłacane, rzadziej złote, zdobione były rozbudowaną ornamentyką stempelkową. Powtarzające się motywy zdobnicze obejmowały stylizowane wyobrażenia gwiazd, koncentryczne koła i półkola, wypełnione trójkąty i prostokąty. Wszystkie elementy horyzontu Sösdala należą do znalezisk stosunkowo rzadkich bądź wręcz wyjątkowych; można je traktować jako symbole społecznego prestiżu.

Z wyjątkiem paradnych uprzęży końskich charakterystycznych wyłącznie dla Skanii pozostałe zabytki należące do tego horyzontu występują na całym obszarze południowej Skandynawii (ryc. 18–20, 22, 24), koncentrując się szczególnie w północnej Jutlandii, południowej i południowo-zachodniej Norwegii, Zelandii, Skanii i Västergotland. Jako peryferyczne traktować należy znaleziska ze Szlezwiku, Bornholmu czy Gotlandii. Analizując różne kategorie horyzontu Sösdala wskazać można zarówno na elementy o lokalnym

charakterze (paradne uprzęże końskie), jak i formy interregionalne (zapinki blaszane typu 2. i 3.). Można również prześledzić powiązania między poszczególnymi regionami, co jest szczególnie widoczne w przypadku północnej Jutlandii i południowo-zachodniej Norwegii.

Analiza współwystępowania elementów horyzontu Sösdala w zespołach zwartych (ryc. 26) pozwoliła stwierdzić, iż choć zasadniczo jest to horyzont typowy dla wczesnego okresu germańskiego (*Early Germanic Iron Age*), niektóre zabytki tego horyzontu pojawiły się nieco wcześniej, w fazie C_3 (zapinki blaszane typu 2., zawieszki dwustożkowate). W chronologii bezwzględnej początek horyzontu Sösdala przypada na 2. poł. IV w., a schyłek na 1. poł. wieku V (na podstawie znalezisk z monetami z Torstorp Vesterby i Høstentorp).

Analogicznie jak horyzont skandynawskich zabytków ze stempelkami wydzielić można zespół zabytków zdobionych stempelkami z ziem bałtyjskich. Został on określony mianem horyzontu sambijskiego. Obejmuje on zapinki z gwiaździstą nóżką, języczkowate okucia końca pasa (tzw. typ sambijski) oraz sprzączki z metopą u nasady kolca i czworokątną skuwką. Zabytki te rzadko wykonywano ze srebra, najczęściej z brązu, ale regułą było wykładanie ich srebrną blaszką zdobioną na całej powierzchni stempelkami. Powtarzające się motywy stempelkowe to stylizowane przedstawienia gwiazd, wielocentryczne koła i półkola, wypełnione trójkąty oraz motywy S-kształtne. Elementy horyzontu sambijskiego występują niemal wyłącznie w bogato wyposażonych grobach kobiet lub mężczyzn, reprezentujących elitę społeczeństwa bałtyjskiego.

Największa koncentracja zabytków omawianego horyzontu występuje w kulturze Dollkeim/Kovrovo, na Półwyspie Sambijskim oraz w Natangii (ryc. 27–28, 30). Pewna grupa znalezisk pochodzi także z kultury bogaczewskiej, skupiska gołdapskiego kultury sudowskiej i zachodniej Litwy. Pojedyncze, rozproszone egzemplarze pochodzą ze wschodniej strefy Bałtyku, a także z Olandii i Bornholmu. Bardzo ciekawym zjawiskiem, które towarzyszy horyzontowi sambijskiemu jest występowanie uproszczonych naśladownictw pozbawionych srebrnej blaszki, ze szczątkowym ornamentem lub w ogóle bez zdobienia. Mają one znacznie szerszy zasięg, obejmujący rozległe połacie ziem bałtyjskich i fińskich, a w przypadku derywatów języczkowatych okuć końca pasa także tereny kultury przeworskiej i wielbarskiej (ryc. 29).

Analiza diagramu (ryc. 31) współwystępowania poszczególnych elementów horyzontu sambijskiego w zwartych zespołach grobowych potwierdziła wcześniejsze ustalenia (K. Godłowski 1970, tabl. XII; 1974, 71–73; W. Nowakowski 1996, 15–54), iż można je traktować jako wyznaczniki wczesnego okresu wędrówek ludów, czyli fazy D na ziemiach bałtyjskich. Okazało się jednak, że najwcześniejszym egzemplarzom towarzyszą zabytki charakterystyczne dla wcześniejszej fazy kultury Dollkeim/Kovrovo, a najpóźniejsze okazy pochodzą z początków późnego okresu wędrówek ludów.

Analiza poszczególnych elementów horyzontu sambijskiego i horyzontu Sösdala z szerokim uwzględnieniem ich kontekstu archeologicznego pozwoliła na wydzielenie, w ramach każdego z tych horyzontów, wzajemnie synchronicznych trzech faz chronologii względnej (ryc. 32). Skandynawskie zespoły z monetami oraz pośrednio źródła bałtyjskie umożliwiły skorelowanie datowania względnego z chronologią absolutną. Ramy czasowe obu horyzontów zamykają się między 2. poł. IV w. a pierwszymi dziesięcioleciami wieku V.

Zsynchronizowanie faz względnych horyzontu sambijskiego i horyzontu Sösdala dało następnie możliwość zbudowania skorelowanej sekwencji zabytków bałtyjskich i skandynawskich, a tym samym zaproponowania porównywalnego systemu chronologii względnej dla tych obszarów (tabl. LIX). Wydzielono sześć faz – faza 0 poprzedza pojawienie się horyzontów sambijskiego i Sösdala, fazy 1–3 odpowiadają omawianym horyzontom, fazy 4–5 są ich sukcesorami.

Proponowany system chronologii względnej zsynchronizowano następnie z datowaniem interregionalnym. Dla ziem bałtyjskich faza 0 odpowiada fazie C_3, fazy 1–3 można korelować z fazą D, faza 4. jest przejściowa pomiędzy wczesnym i późnym okresem wędrówek ludów (fazami D i E), podczas gdy faza 5. odpowiada późnemu

okresowi wędrówek ludów. Materiał skandynawski został zsynchronizowany z duńskim systemem chronologicznym jako najpełniejszym i najbardziej rozbudowanym dla Skandynawii. Faza 0 może być skorelowana z fazą C_3, podczas gdy faza 1. koresponduje ze stadium przejściowym między schyłkiem okresu wpływów rzymskich (fazą C_3) a początkiem wczesnego okresu germańskiego (*Early Germanic Iron Age*). Fazy 2–4 odpowiadają wczesnemu okresowi germańskiemu, natomiast faza 5. jest synchroniczna z późnym okresem germańskim (*Late Germanic Iron Age*).

Uzyskane wyniki pozwalają na dostrzeżenie nieco odmiennego rytmu przemian kulturowych po obu stronach Bałtyku. O ile dla ziem bałtyjskich przejście pomiędzy okresem rzymskim a wczesną fazą okresu wędrówek ludów jest dobrze czytelne w materiale archeologicznym, o tyle w Skandynawii jest to słabo uchwytne. Z kolei w materiale skandynawskim bardzo jasno rysuje się granica pomiędzy wczesnym i późnym okresem germańskim, która to granica pozostaje słabo czytelna na ziemiach bałtyjskich.

4. Podsumowanie. Elita i klasa średnia – obraz społeczeństwa wokół Bałtyku

Wypracowanie narzędzi do porównywania i synchronizacji materiałów archeologicznych wokół Bałtyku pozwoliło bardziej precyzyjnie uchwycić w czasie wzajemne relacje między odmiennymi kulturowo, często bardzo odległymi geograficznie regionami. W połączeniu z dokładną analizą stylistyczną można było poczynić ciekawe obserwacje wędrówek wzorów wokół Bałtyku i kontaktów między warsztatami. W wielu przypadkach źródłem inspiracji był ośrodek sambijski, jednak wzory bałtyjskie bardzo szybko adaptowano w środowisku skandynawskim. Wśród analizowanych ozdób mamy do czynienia zarówno z materiałem o charakterze masowym, jak i formami rzadko występującymi. Pozwoliło to zbadać różne aspekty wzajemnych powiązań w basenie Bałtyku, uwzględniające różne grupy społeczne. Na przykład analiza zabytków masowych, takich jak fibule typów Schönwarling/Skowarcz i Dollkeim/Kovrovo, stanowiących elementy stroju klasy średniej, zwróciła uwagę na znacznie bliższe powiązania mieszkańców Sambii z obcą etnicznie i kulturowo ludnością Gotlandii i Olandii niż ich bałtyjskimi kuzynami. Dychotomia „swój – obcy" zyskała tym samym inny wymiar. Rzadkie, reprezentacyjne ozdoby, które można uznać za wyznaczniki prestiżu społecznego, na przykład paradne egzemplarze zapinek typu Daumen/Tumiany, ujawniły dalekosiężne kontakty między elitami Skandynawii, ziem bałtyjskich i zachodniej Europy.

Analiza wszystkich uwzględnionych w pracy kategorii zabytków w powiązaniu z ich kontekstem archeologicznym zwraca uwagę na kwestie zróżnicowania społecznego plemion mieszkających wokół Bałtyku. Obserwacja obrządku pogrzebowego we wczesnej fazie okresu wędrówek ludów wskazuje na zjawisko silnej konkurencji pomiędzy poszczególnymi rodami, a zarazem ciągle jeszcze niestabilne struktury władzy. Problematyka zróżnicowania społecznego w Skandynawii i w Europie zachodniej w okresie wędrówek ludów doczekała się wielu opracowań, wśród nich przede wszystkim H. Steuera (1982) czy L. Hedeager (1992). Dla ziem bałtyjskich i fińskich brak było dotąd tego typu studiów.

W przypadku plemion fińskich nie ma praktycznie możliwości uchwycenia wewnętrznego zróżnicowania społeczeństwa, ponieważ specyficzny obrządek pogrzebowy wyklucza wydzielenie indywidualnych zespołów grobowych. Można jedynie domniemywać, że poszczególne obstawy kamienne na cmentarzyskach typu tarand zbudowane były dla konkretnych rodów, brak jednak jednoznacznych śladów konkurencji między nimi. Być może było to społeczeństwo o małym stopniu zróżnicowania socjalnego, bądź też pozycję poszczególnych rodów lub jednostek manifestowano w inny sposób niż za pośrednictwem obrządku pogrzebowego.

Powstaje pytanie, czy te same obserwacje dotyczą społeczeństwa bałtyjskiego. Odpowiedź odnaleźć można w *Germanii* Tacyta, przy oczywistym zastrzeżeniu, iż pisał on o czasach znacznie wcześniejszych. Jednak jego stanowcze *Hic Suebia*

finis!, dla podkreślenia granicy pomiędzy jeszcze cywilizowanymi Estiami (*Aestii*) a dzikimi, barbarzyńskimi Fennami (*Fenni*), wskazywałoby jednoznacznie na przynależność bałtyjskich Estiów do tego samego modelu cywilizacyjnego, który cechował resztę Germanii. Trwałość tradycji kulturowych, zakłócona dopiero pojawieniem się Słowian u południowych wybrzeży Bałtyku, pozwala przypuszczać, iż te podobieństwa modelu cywilizacyjnego utrzymywały się także w okresie wędrówek ludów.

Wspierając się zatem na autorytecie Tacyta można spróbować porównać strukturę społeczną plemion bałtyjskich i skandynawskich. Okazało się, że rozwój tych odmiennych etnicznie i kulturowo społeczeństw zmierzał w podobnym kierunku. Na przykład obserwowane w Skandynawii nasilające się w okresie wędrówek ludów zjawiska rywalizacji między rodami oraz koncentracji siły i władzy można dostrzec także na ziemiach bałtyjskich. W skandynawskim materiale archeologicznym jest to znakomicie czytelne poprzez pojawienie się w początkach późnego okresu wędrówek ludów horyzontu niezwykle bogatych grobów z bronią i zestawem symboli osobistego prestiżu zmarłego. Chodzi tu o zespoły z Kobbeå, grób 1 oraz z Glasergård, groby 1 i 2 na Bornholmie, groby 7 i 8 w Valsgärde oraz najwcześniejsze pochówki w Vendel w środkowej Szwecji, Vallstenarum i Kylver, grób 7 na Gotlandii czy Torgård w Norwegii (ryc. 33). Synchroniczne ze skandynawskimi, bardzo bogate zespoły grobowe z bronią, zdecydowanie wyróżniające się swoim wyposażeniem od innych pochówków, pojawiają się także na ziemiach bałtyjskich – grób 1 z Warnikam, kurhan 5 z Taurapilis czy grób 2 z Ģeistauti (ryc. 33). Zjawisko centralizacji władzy, którego manifestacją są wspomniane wyżej pochówki, dotyczy więc w równym stopniu południowo-wschodnich i zachodnich wybrzeży Bałtyku.

References

Abbreviations

Aarbøger – *Aarbøger for Nordisk Oldkyndighed og Historie*, København.

AB – *Aarsberetning for foreningen til norske fortidminnesmerkers bevaring*, Oslo.

BMÅ – *Bergens Museums Årbok, tilvekster*, Bergen.

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Catalogue

With a corpus of finds such extensive as this, it is necessary to construct the catalogue as practical as possible. The author chose the form of appendices. There are twelve find lists, appendices A through L. Appendix A includes archaeological sites discussed in Chapter 2. in alphabetical order. Appendices B through K list all brooch categories analysed in chapter "Material". The finds are entered here with their present location, the grave number, where possible, and bibliography. Finally, Appendix L is an index of German placenames featuring Balt sites in former East Prussia.

In some cases individual finds are accompanied by a museum accession number. It concerns artefacts, which were either never published or only mentioned in literature, or could have been personally examined by the author.

The list of museums:

ÅHM – Ålborg Historisk Museum
B – Historisk Museum, Bergen
BMR – Bornholms Museum, Rønne
C – Universitetets Oldsaksamling, Oslo
GF – Gotlands Fornsal
HAM – Haderslev Museum
KLM – Kalmar Läns Museum
LNM – Lietuvos Nacionalinis muziejus, Vilnius (former Lietuvos istorijos ir etnografijos muziejus)
LUHM – Lunds Universitets Historiska Museum
LVM – Latvijas Vēstures muzejs, Rīga
MOB – Muzeum Okręgowe, Białystok (now Muzeum Podlaskie in Białystok)
MWM – Muzeum Warmii i Mazur, Olsztyn
MVFB – Museum für Vor- und Frühgeschichte Berlin, Staatliche Museen Preußischer Kulturbesitz
NM C – Nationalmuseet, København
PMA – Państwowe Muzeum Archeologiczne, Warszawa
S – Arkeologisk museum i Stavanger
SHM – Statens Historiska Museum, Stockholm
Ts – Tromsø Museum
VDKM – Vytauto Didžiojo karo muziejus, Kaunas

A number of finds are known only from archival material, namely:

M. Jahn's archive – in Institute of Archaeology, Warsaw University
F. Jakobson's archive – in Latvijas Vēstures muzejs, Rīga
H. Shetelig's archive – in Historisk Museum, Bergen

Appendix A
Sites analysed in Chapter 2.

The list below includes all archaeological sites cited and analysed in Chapter 2. They are arranged in alphabetical order within cultural or geographical units. The same is followed in appendices B–K for easier comparison. Sites are numbered from 1 to 392. The same numbers are used on maps Fig. 34, 34A, 34B–D. The findspots are accompanied by current administrative data. The main aim of the author was to make finding the sites on maps as easy as possible. The findspots in Poland are defined as follows: placename, powiat (= district), województwo (= voivodship) according to the new administrative system started from January 1999, but with additional information given about the pre-1999 voivodship. Norwegian finds are given with location, kommune (= district), fylke (= county) following the current Norwegian convention, but the name of the parish–prestegjeld, where known, is also given, because this earlier system is still followed by most museum records. There is no comprehensive list for converting prestegjeld to kommune. In the case of Bornholm the findspots are associated with sogn (= parish) instead of, according to current Danish convention, herred (= district), because the former makes easier the location of sites within the island.

Former German placenames of findspots are consistently given for the Balt lands and for certain sites of Wielbark Culture and Dębczyno Group where this would facilitate finding information in pre-1945 literature.

Abbreviations: Kr. = *Kreis*
pow. = *powiat*
raj. = *rajon*
woj. = *województwo*

Balt lands

DOLLKEIM/KOVROVO CULTURE

1. **Berezovka** (former **Groß Sausgarten**), raj. Bagrationovsk, Russia
2. **Cherniakhovsk** (former **Insterburg**), raj. loco, Russia
3. former **Eisliethen**, raj. Zelenogradsk, Russia
4. former **Grebieten**, raj. Zelenogradsk, Russia
5. fromer **Greibau**, raj. Zelenogradsk, Russia
6. **Gurevsk** (former **Traussitten**), raj. loco, Russia
7. **Iskovo** (former **Ringels**), raj. Zelenogradsk, Russia
8. **Kovrovo** (former **Dollkeim**), raj. Zelenogradsk, Russia
9. **Lermontovo** (former **Wogau**), raj. Bagrationovsk, Russia
10. **Letnoe** (former **Tenkieten**), raj. Zelenogradsk, Russia
11. **Logvino** (former **Medenau**), raj. Gurevsk, Russia
12. **Lyublino** (former **Serappen**), raj. Zelenogradsk, Russia
13. former **Löbertshof**, raj. Polessk, Russia
14. **Mokhovoe** (former **Kaup-Wiskiauten**), raj. Zelenogradsk, Russia
15. **Nalikajmy** (former **Liekeim**), pow. Bartoszyce, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
16. **Okhotnoe** (former **Bieskobnicken**), raj. Zelenogradsk, Russia
17. **Orekhovo** (former **Schuditten**), raj. Zelenogradsk, Russia
18. **Osokino** (former **Groß Waldeck**), raj. Bagrationovsk, Russia
19. **Ozerovo** (former **Transsau**), raj. Zelenogradsk, Russia
20. **Parkoszewo** (former **Perkau**), pow. Bartoszyce, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
21. **Pereslavskoe** (former **Drugehnen**), raj. Zelenogradsk, Russia
22. **Pesochnoe** (former **Detlevsruh**), raj. Pravdinsk, Russia
23. **Pionerskij-Zarechye "Gora Velikanov"** (former **Rantau "Hünnenberg"**), raj. Zelenogradsk, Russia

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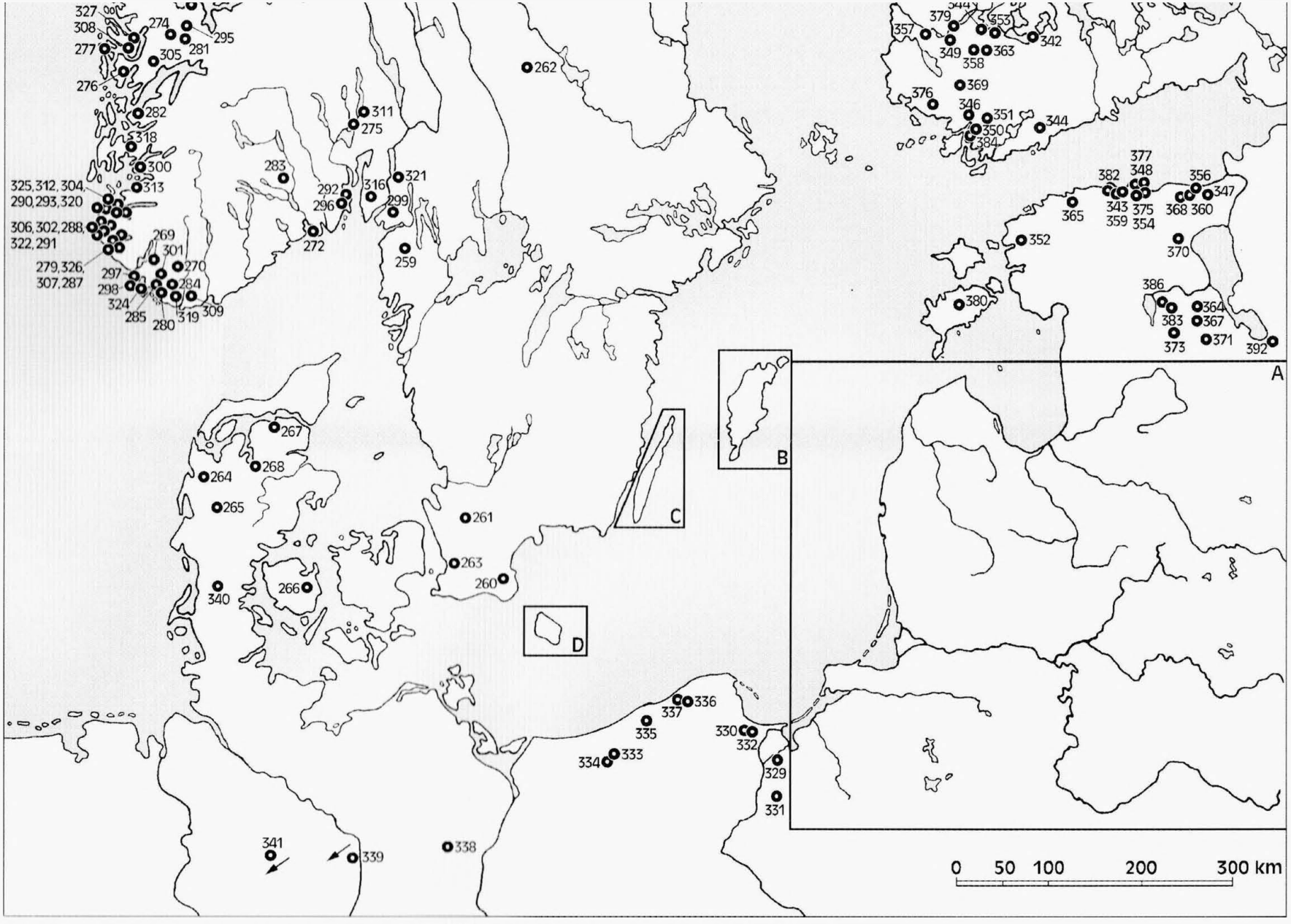
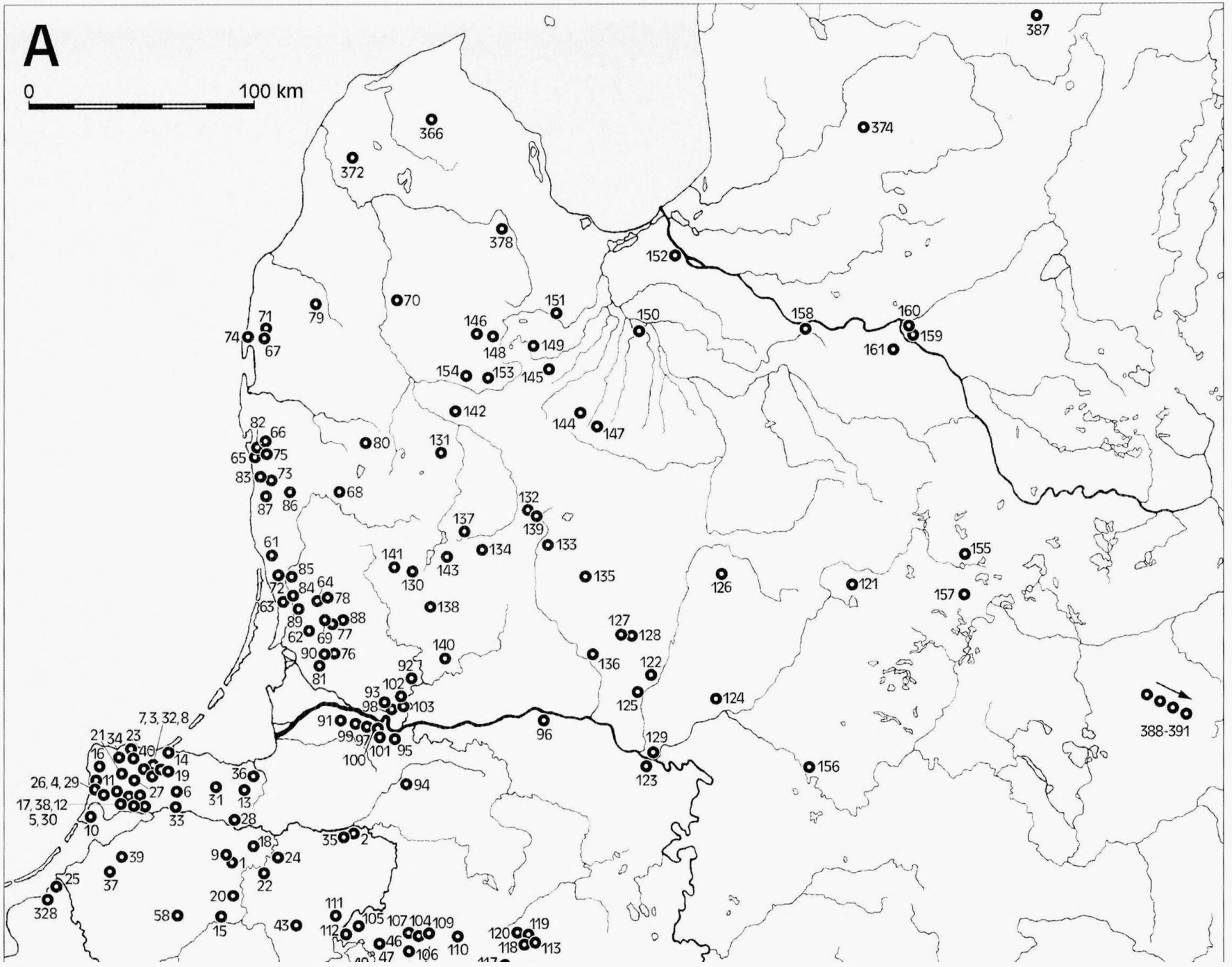


Fig. 34. Archaeological sites analysed in Chapter 2. (excluding the Balt lands and the Baltic islands).

FIGURE 34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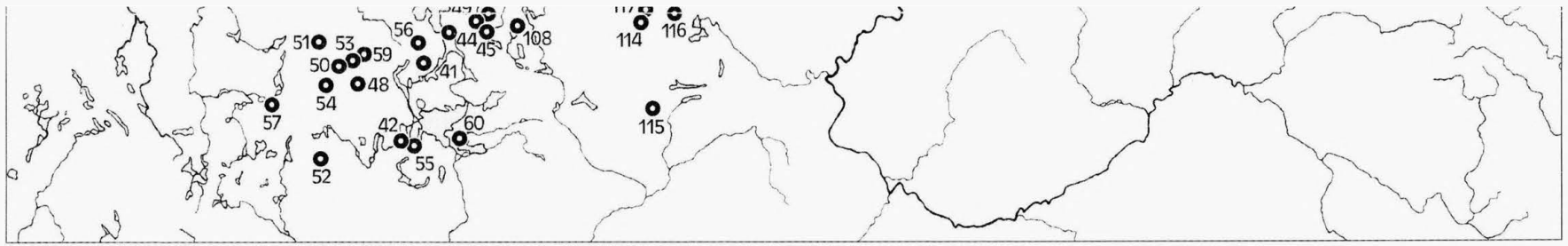


Fig. 34 A. Archaeological sites analysed in Chapter 2. The Balt lands.

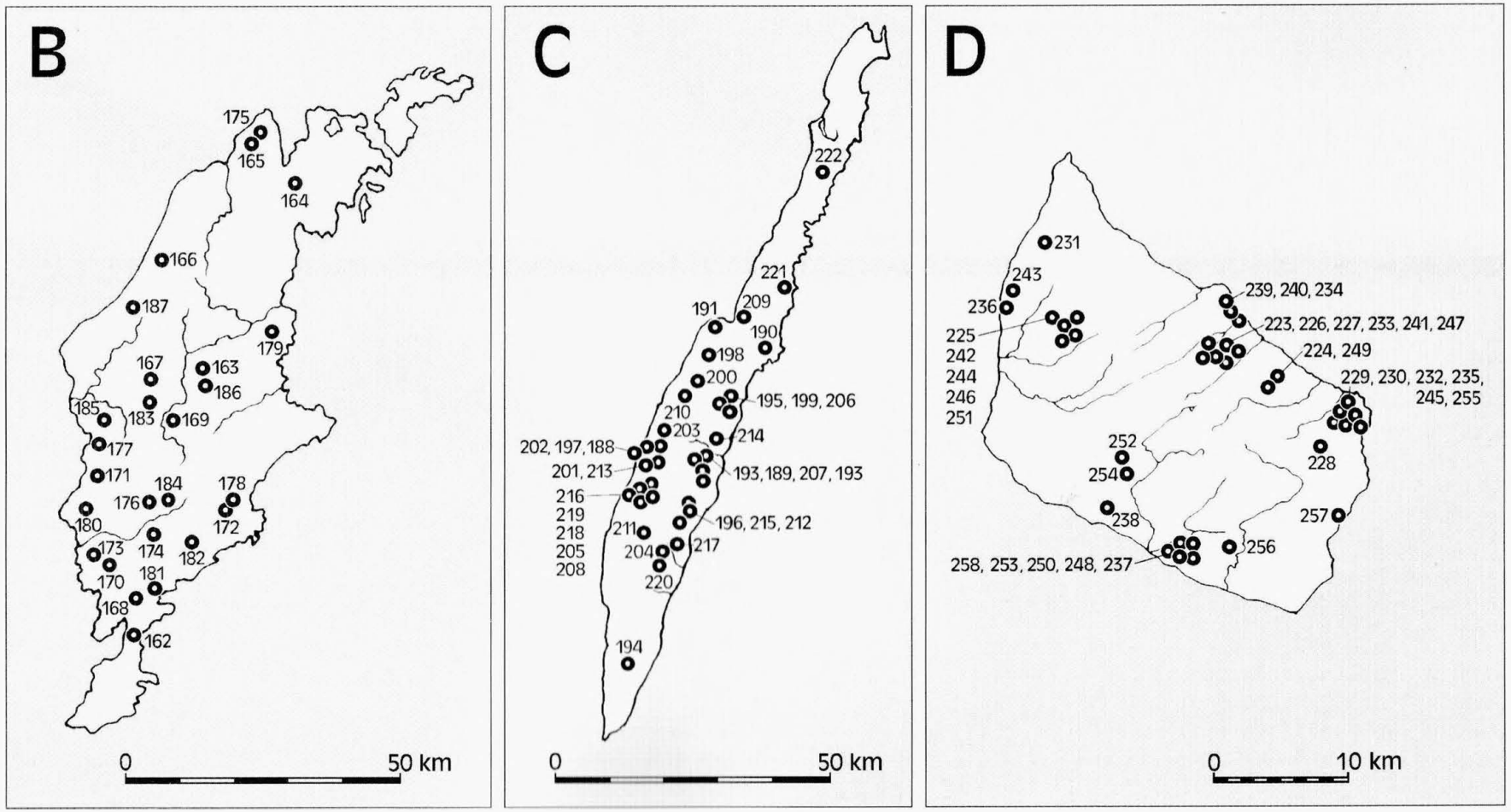


Fig. 34 B – D. Archaeological sites analysed in Chapter 2. Gotland, Öland and Bornholm.

← FIGURE 34A FIGURE 34B–D

24. former **Plauen**, raj. Cherniakhovsk, Russia
25. **Podgórze** (former **Huntenberg**), pow. Braniewo, woj. warmińsko-mazurskie (former Elbląg voiv.), Poland
26. **Povarovka** (former **Kirpehnen**), raj. Zelenogradsk, Russia
27. **Prostornoe** (former **Seefeld**), raj. Zelenogradsk, Russia
28. **Prudovka** (former **Popelken**), raj. Cherniakhovsk, Russia
29. **Putilovo** (former **Corjeiten**), raj. Zelenogradsk, Russia
30. **Rovnoe** (former **Pollwitten**), raj. Zelenogradsk, Russia
31. **Samland**, Russia
32. **Sirenevo** (former **Eisselbitten**), raj. Zelenogradsk, Russia
33. **Solechnoe** (former **Praddau**), raj. Gurevsk, Russia
34. **Svetlogorsk** (former **Kirtigehnen**), raj. loco, Russia
35. **Telmanovo** (former **Althof-Insterburg**), raj. Cherniakhovsk, Russia
36. **Tiulenino** (former **Viehof**), raj. Polessk, Russia
37. **Uzornoe** (former **Jäcknitz**), raj. Bagrationovsk, Russia
38. former **Warengen**, raj. Zelenogradsk, Russia
39. former **Warnikam**, raj. Bagrationovsk, Russia
40. **Yaroslavskoe** (former **Schlakalken**), raj. Zelenogradsk, Russia

BOGACZEWO CULTURE/ OLSZTYN GROUP

41. **Bartlikowo** (former **Bartlikshof**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
42. **Gąsior** (former **Gonschor-Jaskowska See**), pow. Pisz, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
43. **Gęsiki** (former **Meisterfelde**), pow. Kętrzyn, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
44. **Giżycko-Góra Szubienicza** (former **Galgenberg-Lötzen**), pow. loco, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
45. **Grądy Kruklaneckie** (former **Grunden**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
46. **Jakunówko** (former **Jakunowken**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
47. **Jasieniec** (former **Groß Eschenort**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
48. **Kosewo** (former **Kossewen**), pow. Mrągowo, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
49. **Kruklanki** (former **Kruglanken**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
50. **Lasowiec** (former **Sternwalde**), pow. Mrągowo, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
51. **Łabędziewo** (former **Labenszowen**), pow. Kętrzyn, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
52. **Miętkie** (former **Mingfen**), pow. Szczytno, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
53. **Mrągowo** (former **Sensburg**), pow. loco, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
54. **Nikutowo** (former **Nikutowen**), pow. Mrągowo, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
55. **Onufryjewo** (former **Onufrigowen**), pow. Pisz, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
56. **Orłowo** (former **Orlowen**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
57. **Tumiany** (former **Daumen**), pow. Olsztyn, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
58. **Worpławki** (former **Worplack**), pow. Kętrzyn, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
59. **Wyszembork** (former **Weißenburg**), pow. Mrągowo, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
60. **Zdory** (former **Sdorren**), pow. Pisz, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland

WEST LITHUANIAN GROUP

61. **Aukštkiemiai** (former **Oberhof**), raj. Klaipėda, Lithuania
62. **Barvai** (former **Barwen**), raj. Šilutė, Lithuania
63. **Degliai** (former **Degeln bei Prökul**), raj. Klaipėda, Lithuania
64. **Dvyliai** (former **Stolzentietz**), raj. Klaipėda, Lithuania

65. **Ģeistauti**, raj. Liepāja, Latvia
66. **Griezes**, raj. Liepāja, Latvia
67. **Grobina**, raj. Liepāja, Latvia
68. **Jazdaičiai**, raj. Plungė, Lithuania
69. **Jurgaičiai**, raj. Šilutė, Lithuania
70. **Kalniņi Bunkas**, raj. Kuldiga, Latvia
71. **Kapsēda**, raj. Liepāja, Latvia
72. **Laistai** (former **Leisten**), raj. Klaipėda, Lithuania
73. **Lazdininkai**, raj. Kretinga, Lithuania
74. **Liepāja**, raj. loco, Latvia
75. **Mazkatuži**, raj. Liepāja, Latvia
76. **Metirkviečiai** (former **Metterkweten**), raj. Šilutė, Lithuania
77. **Nikėlai**, raj. Šilutė, Lithuania
78. **Norgėlai**, raj. Klaipėda, Lithuania
79. **Ošenieki**, raj. Liepāja, Latvia
80. **Paparčiai**, raj. Skuodas, Lithuania
81. **Rubokai** (former **Rubocken**), raj. Šilutė, Lithuania
82. **Rucava**, raj. Liepāja, Latvia
83. **Rudaičiai**, raj. Kretinga, Lithuania
84. **Stragnai**, raj. Klaipėda, Lithuania
85. **Šernai** (former **Schernen**), raj. Klaipėda, Lithuania
86. **Tūbaušiai**, raj. Kretinga, Lithuania
87. **Užpelkiai**, raj. Kretinga, Lithuania
88. **Vilkų Kampas**, raj. Šilutė, Lithuania
89. **Vilkyčiai** (former **Wilkieten**), raj. Šilutė, Lithuania
90. former **Weszeiten**, raj. Šilutė, Lithuania

LOWER NEMUNAS GROUP

91. former **Bendiglauken**, raj. Neman, Russia
92. **Greižėnai** (former **Greyszönen**), raj. Tauragė, Lithuania
93. **Lumpėnai** (former **Lumpönen**), raj. Šilutė, Lithuania
94. **Mezhdurechye** (former **Groß Pillkallen**), raj. Cherniakhovsk, Russia
95. **Neman** (former **Ragnit Schloßberg**), raj. loco, Russia
96. **Pakalniškiai**, raj. Šakiai, Lithuania
97. former **Paskalwen**, raj. Neman, Russia
98. **Rambynas** (former **Rombinus**), raj. Šilutė, Lithuania
99. **Rzhevskoe** (former **Linkuhnen**), raj. Slavsk, Russia
100. **Sovetsk** (former **Tilsit**), raj. loco, Russia
101. by **Sovetsk** (former **Tilsit**) **"Rombinusberg"**, raj. Sovetsk, Russia
102. **Vidgiriai**, raj. Šilutė, Lithuania
103. **Vilkyškiai** (former **Wilkischken**), raj. Šilutė, Lithuania

SUDOVIAN CULTURE, GOŁDAP AREA

104. **Boćwinka** (former **Alt-Bodschwingken**), pow. olecko-gołdapski, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
105. **Czerwony Dwór** (former **Rothebude**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
106. **Grodzisko** (former **Grodzysko**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
107. **Grunajki** (former **Gruneyken**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
108. **Kamienna Struga** (former **Steinbach**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
109. **Nowa Boćwinka** (former **Neu-Bodschwingken**), pow. olecko-gołdapski, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
110. **Pietrasze** (former **Pietraschen**), pow. olecko-gołdapski, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland
111. **Sławosze** (former **Henriettenfeld**), pow. Kętrzyn, woj. warmińsko-mazurskie (former Olsztyn voiv.), Poland
112. by **Węgorzewo** (former **Angerburg**), pow. Giżycko, woj. warmińsko-mazurskie (former Suwałki voiv.), Poland

SUDOVIAN CULTURE, SUWAŁKI AREA

113. **Bilwinowo**, pow. Suwałki, woj. podlaskie (former Suwałki voiv.), Poland
114. **Korkliny**, pow. Suwałki, woj. podlaskie (former Suwałki voiv.), Poland
115. **Netta**, pow. Augustów, woj. podlaskie (former Suwałki voiv.), Poland
116. **Osinki**, pow. Suwałki, woj. podlaskie (former Suwałki voiv.), Poland
117. **Osowa**, pow. Suwałki, woj. podlaskie (former Suwałki voiv.), Poland
118. **Prudziszki**, pow. Suwałki, woj. podlaskie (former Suwałki voiv.), Poland

119. **Suchodoły**, pow. Suwałki, woj. podlaskie (former Suwałki voiv.), Poland
120. **Wołownia**, pow. Suwałki, woj. podlaskie (former Suwałki voiv.), Poland

CENTRAL LITHUANIAN GROUP

121. **Diktariai**, raj. Anykščiai, Lithuania
122. **Graužiai**, raj. Kėdainiai, Lithuania
123. **Marvelė**, raj. Kaunas, Lithuania
124. **Obeliai**, raj. Ukmergė, Lithuania
125. **Panevėžinkas**, raj. Kaunas, Lithuania
126. **raj. Panevėžys**, Lithuania
127. **Pašušvys**, raj. Kėdainiai, Lithuania
128. **Plinkaigalis**, raj. Kėdainiai, Lithuania
129. **Veršvai-Kaunas**, raj. loco, Lithuania

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

130. **Dargaliai**, raj. Šilalė, Lithuania
131. **Dingailiai**, raj. Mažeikiai, Lithuania
132. **Gilvyčiai**, raj. Šiauliai, Lithuania
133. **Jakštaičiai-Meškiai**, raj. Šiauliai, Lithuania
134. **Junkilai**, raj. Kelmė, Lithuania
135. **Kairėneliai**, raj. Radviliškis, Lithuania
136. **Kalniškiai**, raj. Raseiniai, Lithuania
137. **Maudžiorai**, raj. Kelmė, Lithuania
138. **Pagrybis,** raj. Šilalė, Lithuania
139. **Sauginiai**, raj. Šiauliai, Lithuania
140. **Stirbaičiai**, raj. Tauragė, Lithuania
141. **Šarkai**, raj. Šilalė, Lithuania
142. **Viekšniai**, raj. Akmenė, Lithuania
143. **Žemajtija**, Lithuania

SEMIGALLIAN FLAT CEMETERIES GROUP

144. **Budraičiai**, raj. Joniškis, Lithuania
145. **Bukaiši**, raj. Dobele, Latvia
146. **Grīnerti**, raj. Dobele, Latvia
147. **Jauneikiai**, raj. Joniškis, Lithuania
148. **Kokumuiža**, raj. Dobele, Latvia
149. **Liekņi**, raj. Jelgava, Latvia
150. **Miklas Kalns**, raj. Jelgava, Latvia
151. **Oši**, raj. Dobele, Latvia
152. **Pļavniekkalns**, raj. Riga, Latvia
153. **Reņge**, raj. Jelgava, Latvia
154. **Rūsiši-Debeši**, raj. Jelgava, Latvia

EAST LITHUANIAN BARROWS CULTURE

155. **Eikotiškis**, raj. Zarasai, Lithuania
156. **Grabijolai**, raj. Vilnius, Lithuania
157. **Taurapilis**, raj. Utena, Lithuania

EAST LATVIAN FLAT CEMETERIES GROUP

158. **Jaunjelgava**, raj. Jēkabpils, Latvia
159. **Jēkabpils**, raj. loco, Latvia
160. **Krustpils Mantas**, raj. Jēkabpils, Latvia
161. **Kunci**, raj. Jēkabpils, Latvia

Germanic lands

GOTLAND

162. **Barshaldershed**, Fide/Grötlingbo, Sweden
163. **Bjärby**, Sjonhem, Sweden
164. **Bjärs**, Lärbro, Sweden
165. **Broa**, Hall, Sweden
166. **Brucebo**, Västkinde, Sweden
167. **Gotland**, Sweden
168. **Grötlingbo parish**, Sweden
169. **Guldrupe**, Guldrupe, Sweden
170. **Hablingbo parish**, Sweden
171. **Hallgårds**, Fröjel, Sweden
172. **Hallbjens**, Lau, Sweden
173. **Havor**, Hablingbo, Sweden
174. **Hemse**, Rone, Sweden
175. **Högbro**, Hall, Sweden
176. **Kälder**, Linde, Sweden
177. **Klinte parish**, Sweden
178. **Lau parish**, Sweden
179. **Medebys**, Gothem, Sweden
180. **Mellings**, Eksta, Sweden
181. **Roes**, Grötlingbo, Sweden
182. **Roes**, Rone, Sweden
183. **Rundarve**, Atling, Sweden
184. **Salands**, Linde, Sweden
185. **Sandegårda**, Sanda, Sweden
186. **Sjonhem parish**, Sweden
187. **Tjängdarve**, Träkumla, Sweden

ÖLAND

188. **Algutsrum**, Algutsrum, Sweden
189. **Bläsinge**, N. Möckleby, Sweden
190. **Bo**, Bredsätra, Sweden
191. **Borgholms slott**, Räpplinge, Sweden
192. **Borstorp**, N. Möckleby, Sweden
193. **Dörby**, N. Möckleby, Sweden
194. **Eketorp**, Gräsgård, Sweden
195. **Folkeslunda**, Långlöt, Sweden
196. **Gårdby**, Gårdby, Sweden
197. **Gråborg**, Algutsrum, Sweden
198. **Greby**, Räpplinge, Sweden
199. **Himmelsberga**, Långlöt, Sweden
200. **Högsrum parish**, Sweden
201. **Holmetorp**, Algutsrum, Sweden
202. **Hönstorp**, Algutsrum, Sweden
203. **Isgärde**, Glömminge, Sweden
204. **Kaplansborklet**, Stenåsa, Sweden
205. **Kåtorp**, Torslunda, Sweden
206. **Långlöt parish**, Sweden
207. **Långrälla**, N. Möckleby, Sweden
208. **Lenstad**, Torslunda, Sweden
209. **Lundegård**, Köping, Sweden
210. **Mossberga bog**, Högsrum, Sweden
211. **Öland**, Sweden
212. **Övre Ålebäck**, Gårdby, Sweden
213. **Rosenborg**, Algutsrum, Sweden
214. **Runsten**, Runsten, Sweden
215. **Sandby**, Sandby, Sweden
216. **Skogsby**, Torslunda, Sweden
217. **Södra Kvinneby**, Stenåsa, Sweden
218. **Torsborg**, Torslunda, Sweden
219. **Torslunda**, Torslunda, Sweden
220. **Triberga**, Hulterstad, Sweden
221. **Valsnäs**, Löt, Sweden
222. **Vi Alvar**, Källa, Sweden

BORNHOLM

223. **Agerbygård/Bakkegård**, Østerlars, Denmark
224. **Alstenbakke/Saltuna**, Østermarie, Denmark
225. **Baggård**, Klemensker, Denmark
226. **Bakkegård**, Østerlars, Denmark
227. **Bokul**, Østerlars, Denmark
228. **Bornholm**, Denmark
229. **Brændesgård "Kanonhøj"**, Ibsker, Denmark
230. **Brændesgård**, Ibsker, Denmark
231. **Bukkegård**, Rutsker, Denmark
232. **Dalshøj**, Ibsker, Denmark
233. **Heslegård**, Østerlars, Denmark
234. **Kobbeå**, Østerlars, Denmark
235. **Kølleregård**, Ibsker, Denmark
236. **Levka**, Hasle, Denmark
237. **Lille Loftsgård**, Åker, Denmark
238. **Lille Myregård**, Nylars, Denmark
239. **Melsted**, Østerlars, Denmark
240. **Melsted-Sandhuset**, Østerlars, Denmark
241. **Møllebakken**, Østerlars, Denmark
242. **Møllegård**, Klemensker, Denmark
243. **Nygård**, Hasle, Denmark
244. **Nygård**, Klemensker, Denmark
245. **Rabækkegård**, Ibsker, Denmark
246. **Rødbjerg/Tornbygård**, Klemensker, Denmark
247. **Rytterbakken**, Østerlars, Denmark
248. **Runegård**, Åker, Denmark
249. **Saltuna**, Østermarie, Denmark
250. **Sandegård**, Åker, Denmark
251. **Skovgård-Vest**, Klemensker, Denmark
252. **Smørenge**, Vestermarie, Denmark
253. **Soldatergård**, Åker, Denmark
254. **Sønder Ellebygård**, Vestermarie, Denmark
255. **Sorte Muld**, Ibsker, Denmark
256. **Store Gadegård**, Pedersker, Denmark
257. **Strandmarken v/Nexø**, Nexø, Denmark
258. **Vasegård**, Åker, Denmark

SWEDEN (excluding Gotland and Öland)

259. **Bohuslän**
260. **Gårdlösa**, Smedstrop, Scania
261. **Scania**
262. **Tisjön**, Lima, Dalarna
263. **Uppåkra**, Uppåkra, Scania

DENMARK (excluding Bornholm)

264. **Bondesgård**, Ulfborg, Ringkøping, Jutland
265. **Denmark**
266. **Gudme**, Gudme, Svendborg, Fyn
267. **Sebbersund**, Limfjord, Ålborg, Jutland
268. by **Viborg**, unknown site, Jutland

NORWAY

269. **Ådland**, (Bakke), Flekkefjord, Vest Agder
270. **Ågedal**, (Bjelland), Marnardal, Vest Agder
271. **Åk**, (Gryten), Møre og Romsdal
272. **Aske**, Brunlanes, Vestfold
273. **Bø**, (Stryn), Stryn, Sogn og Fjordane
274. **Bolstad**, (Evanger), Voss, Hordaland
275. **Bråten**, (Norderhov), Hønefoss, Buskerud
276. **Døso**, (Os), Os, Hordaland
277. **Eikeland**, (Herdla = former Herlø), Meland, Hordaland
278. **Finnøy**, (Hamarøy), Hamarøy, Nordland
279. **Fotland**, (Eigersund), Eigersund, Jæren, Rogaland
280. **Gar**, Lindesnes, Vest Agder
281. **Gjukastein**, (Voss), Voss, Hordaland
282. **Grindheim**, (Etne), Etne, Hordaland
283. **Gullhaugen**, Sauherad, Telemark
284. **Hægebostad**, (Nord-Audnedal), Lindesnes, Vest Agder
285. **Hårigstad**, (Lyngdal), Lyngdal, Vest Agder
286. **Henjum**, Leikanger, Sogn og Fjordane
287. **Holmen**, (Helleland), Eigersund, Jæren, Rogaland
288. **Horr**, (Hå), Hå, Jæren, Rogaland
289. **Hove**, (Vok), Vik, Sogn og Fjordane
290. **Hovland**, Sandnes, Rogaland
291. **Kvassheim**, Hå, Jæren, Rogaland
292. **Lasken**, (Sem), Sem, Vestfold
293. **Likjell**, Sunndal, Møre og Romsdal
294. **Lima**, (Time), Time, Jæren, Rogaland
295. **Løn**, Voss, Hordaland
296. **Lund**, (Stokke), Stokke, Vestfold
297. **Lunde**, (Vanse), Farsund, Vest Agder
298. **Lunde "Spanskslottet"**, (Vanse), Farsund, Vest Agder
299. **Lundvoll**, Tune, Østfold
300. **Marvik**, (Jelsa), Suldal, Rogaland
301. **Moi Øvre**, Kvinesdal, Vest Agder
302. **Nærbø**, (Nærbø), Hå, Jæren, Rogaland
303. **Nedre Stedje**, (Sogndal), Sogndal, Sogn og Fjordane
304. **Nord-Braut**, (Klepp), Klepp, Jæren, Rogaland
305. **Nordre Birkjeland**, (Kvam), Kvam, Hordaland
306. **Obrestad**, (Hå), Hå, Jæren, Rogaland
307. **Ogna**, Hå, Jæren, Rogaland
308. **Øvre Mjelde**, (Haus), Osterøy, Hordaland
309. **Øvre Stoveland**, (Holmen), Sogne, Vest Agder
310. **Ramberg Sandholmen**, (Bø), Bø, Lofoten-Vesterålen, Nordland
311. **Råstad**, Lunner, Oppland
312. **Rege**, (Håland), Sola, Rogaland
313. **Rivaland i Årdal**, (Hjelmeland), Hjelmeland, Rogaland
314. **Røssøy**, (Steigen), Steigen, Nordland
315. **Skrøppa**, (Gloppen), Gloppen, Sogn og Fjordane
316. **Søndre Gammelsrød**, (Råde), Råde, Østfold
317. **Steine**, (Bø), Bø, Lofoten-Vesterålen, Nordland
318. **Stople**, (Vikedal), Vindafjord, Rogaland
319. **Stoveland**, Mandal, Vest Agder
320. **Tegle**, (Lye), Time, Jæren, Rogaland
321. **Torper**, (Eidsberg), Eidsberg, Østfold
322. **Varhaug**, (Hå), Hå, Rogaland
323. **Varøy**, (Nærrøy), Nærrøy, Nord Trøndelag
324. **Vere**, Farsund, Vest Agder
325. **Vestly**, Sola, Jæren, Rogaland
326. **Værsland**, (Helleland), Bjerkreim, Rogaland
327. **Ytre Arna**, (Haus), Osterøy, Hordaland

WIELBARK CULTURE

328. **Frombork** (former **Frauenburg**), pow. Braniewo, woj. warmińsko-mazurskie (former Elbląg voiv.), Poland
329. **Malbork-Wielbark** (former **Willenberg**), pow. Malbork, woj. pomorskie (former Elbląg voiv.), Poland
330. **Pruszcz Gdański**, (former **Praust**), site 5, pow. Gdańsk, woj. pomorskie (former Gdańsk voiv.), Poland
331. **Rakowiec** (former **Groß Krebs**), pow. Kwidzyń, woj. pomorskie (former Elbląg voiv.), Poland
332. **Skowarcz** (former **Schönwarling**), pow. Gdańsk, woj. pomorskie (former Gdańsk voiv.), Poland

DĘBCZYNO GROUP

333. **Dębczyno**, site 3, pow. Białogard, woj. zachodniopomorskie (former Koszalin voiv.), Poland
334. **Dębczyno**, site 6, pow. Białogard, woj. zachodniopomorskie (former Koszalin voiv.), Poland

335. **Dzierżęcin** (former **Dörsenthin**), pow. Sławno, woj. zachodniopomorskie (former Słupsk voiv.), Poland
336. **Głuszyno**, pow. Słupsk, woj. zachodniopomorskie (former Słupsk voiv.), Poland
337. **Witkowo** (former **Vietkow**), pow. Słupsk, woj. zachodniopomorskie (former Słupsk voiv.), Poland

ELBIAN CULTURE CIRCLE

338. **Grünow**, Kr. Angermünde, Germany
339. **Köthen-Kleipzig**, Kr. loco, Germany
340. **Stenderup**, Haderslev, Jutland, Denmark

BAVARIANS (BAJUVARII)

341. **Altenerding**, Kr. Erding, Germany

Finnish lands

TARAND CULTURE

342. **Antiala**, Tyrväntö, Häme, Finland
343. **Essu**, raj. Rakvere, Estonia
344. **Hiidennokka**, Vesilahti, Satakunta, Finland
345. **Hönsåkerskullen**, Karis, Uusimaa, Finland
346. **Isokylä**, Uskela, Varsinais-Suomi, Finland
347. **Jäbära**, raj. Kohtla-Järve, Estonia
348. **Kalvi**, raj. Rakvere, Estonia
349. **Karhiniemi**, Huittinen, Satakunta, Finland
350. **Ketohaka**, Uskela, Varsinais-Suomi, Finland
351. **Ketomäki**, Uskela, Varsinais-Suomi, Finland
352. **Kirimäe**, raj. Haapsalu, Estonia
353. **Kirjakka**, Lempäälä, Satakunta, Finland
354. **Kirna**, raj. Rakvere, Estonia
355. **Kirstinmäki**, Lillkyro, Etelä Pohjanmaa, Finland
356. **Kohtla Järve**, raj. loco, Estonia
357. **Köönikänmäki**, Kumo, Satakunta, Finland
358. **Kukkuranmäki**, Urjala, Häme, Finland
359. **Laakt** (Lagedi), raj. Rakvere, Estonia
360. **Liimala**, raj. Kohtla-Järve, Estonia
361. **Mäkihaka**, Lillkyro, Etelä Pohjanmaa, Finland
362. **Malaks**, Malaks, Etela Pohjanmaa, Finland
363. **Notsjö**, Urjala, Häme, Finland
364. former **Nüggen**, raj. Tartu, Estonia
365. **Ojaveski**, raj. Tallin, Estonia
366. **Ošbirzes**, raj. Ventspils, Latvia
367. **Paali**, raj. Tartu, Estonia
368. **Pada**, raj. Kohtla-Järve, Estonia
369. **Palomäki**, Uskela, Varsinais-Suomi, Finland
370. **Piilsi**, raj. Kohtla-Järve, Estonia
371. **Pikkjärve** (former Langensee), raj. Põlva, Estonia
372. **Piltene**, raj. Ventspils, Latvia
373. **Purdi**, raj. Valga, Estonia
374. **Rauna**, raj. Cēsis, Latvia
375. **Raudna**, raj. Rakvere, Estonia
376. **Ravatulla**, Kaarina, Varsinais-Suomi, Finland
377. **Reinapi**, raj. Rakvere, Estonia
378. **Reinas**, raj. Tukums, Latvia
379. **Roismala**, Tyrvis, Satakunta, Finland
380. **Saarema**, Estonia
381. **Tervajoki**, Lillkyro, Etela Pohjanmaa, Finland
382. **Tyrma**, raj. Rakvere, Estonia
383. **Unipiha** (former **Unnipicht**), raj. Tartu, Estonia
384. **Vanutehtaanmäki**, Uskela, Varsinais-Suomi, Finland
385. **Viasgränden**, Malaks, Etela Pohjanmaa, Finland
386. **Verevi**, raj. Tartu, Estonia
387. **Virunuka**, raj. Võru, Estonia

Slavic lands

KIEV CULTURE

388. **Babina Gora**, raj. Riazan, Ukraine
389. **Choulgovka**, raj. Dnepropetrovsk, Ukraine
390. **Dneper basin**, Ukraine
391. by **Kiev**, Ukraine

PSKOV "LONG BARROWS" CULTURE

392. **Pskov**, raj. loco, Russia

[1] The Stenderup site has been excluded from the list of Danish findspots, because its cultural character placed it rather within Elbian Culture Circle than among phenomena typical for the rest of Denmark.

Appendix B
Crossbow brooches.
Type Schönwarling/Skowarcz

Balt lands

DOLLKEIM/KOVROVO CULTURE

1. **Berezovka** (former **Groß Sausgarten**)
   - grave 19 – K. Stadie 1919c: 445.

3. former **Eisliethen**
   - grave 186 – A. Jentzsch 1896: 121.
   - loose finds (2 specimens) – N. Åberg 1919: 163.

4. former **Grebieten**; Northern part:
   - grave N.1 – G. Bujack 1888: 203.
   - loose finds (4 specimens) – N. Åberg 1919: 163–164, Fig. 173.

8. **Kovrovo** (former **Dollkeim**)
   - grave 45 (3 specimens) – O. Tischler & H. Kemke 1902: 19.
   - grave 106 – O. Tischler & H. Kemke 1902: 22; N. Åberg 1919: 163.
   - grave 144 (iron, with flat bow) – O. Tischler & H. Kemke 1902: 23, Pl. V, 17.
   - grave 146 – O. Tischler & H. Kemke 1902: 23, Pl. V, 13; N. Åberg 1919: 163.
   - grave 147 (2 specimens) – O. Tischler & H. Kemke 1902: 23, Pl. V, 12.
   - grave 150 (2 specimens) – O. Tischler & H. Kemke 1902: 23, Pl. V, 10–11; N. Åberg 1919: 163, Fig. 51.
   - grave 163 – O. Tischler & H. Kemke 1902: 24, Pl. V, 14; N. Åberg 1919: 163, Fig. 56.
   - grave 165 – O. Tischler & H. Kemke 1902: 24, Pl. V, 4.
   - grave 178 (2 specimens) – O. Tischler & H. Kemke 1902: 25; N. Åberg 1919: 163.
   - grave 183 – O. Tischler & H. Kemke 1902: 25, Pl. V, 6.
   - loose finds (more than 11 specimens) – N. Åberg 1919: 163.

22. **Pesochnoe** (former **Detlevsruh**)
   - grave 21 (3 specimens) – E. Hollack 1914: 277; N. Åberg 1919: 165.

23. **Pionerskij-Zarechye "Gora Velikanov"** (former **Rantau "Hünnenberg"**) – N. Åberg 1919: 164.

25. **Podgórze** (former **Huntenberg**) (3 specimens) – N. Åberg 1919: 165.

27. **Prostornoe** (former **Seefeld**)
   - grave I (iron) – J. Heydeck 1909b: 241, Fig. 164; M. Schulze-Dörrlamm 1986: 650–652, Fig. 72:3.

28. **Prudovka** (former **Popelken**) (4 specimens) – N. Åberg 1919: 164.

29. **Putilovo** (former **Corjeiten**) (10 specimens) – N. Åberg 1919: 163.

32. **Sirenevo** (former **Eisselbitten**) – N. Åberg 1919: 163.

34. **Svetlogorsk** (former **Kirtigehnen**) – N. Åberg 1919: 164.

39. former **Warnikam**
   - grave 32 – O. Tischler & H. Kemke 1902: 43.
   - grave 41 – O. Tischler & H. Kemke 1902: 44.
   - grave 60 – O. Tischler & H. Kemke 1902: 44.
   - grave 65 (with relief ornament) – O. Tischler & H. Kemke 1902: 45, Pl. IV, 26; N. Åberg 1919: 164.

40. **Yaroslavskoe** (former **Schlakalken**) (2 specimens) – N. Åberg 1919: 164.

BOGACZEWO CULTURE

41. **Bartlikowo** (former **Bartlikshof**) (2 specimens) – N. Åberg 1919: 165.

44. **Giżycko - Góra Szubienicza** (former **Galgenberg-Lötzen**) – N. Åberg 1919: 165.

45. **Grądy Kruklaneckie** (former **Grunden**) (2 specimens) – N. Åberg 1919: 165.

49. **Kruklanki** (former **Kruglanken**) (2 specimens) – MVFB Ia. 1037, Ia. 1039; see W. Nowakowski 1998: 121, Pl. 22: 422, 424.

50. **Lasowiec** (former **Sternwalde**) – N. Åberg 1919: 166.

51. **Łabędziewo** (former **Labenszowen**) (4 specimens) – N. Åberg 1919: 165.

52. **Miętkie** (former **Mingfen**)
   - grave 66 – N. Åberg 1919: 166.
   - loose find – N. Åberg 1919: 166.

54. **Nikutowo** (former **Nikutowen**) – N. Åberg 1919: 166.

55. **Onufryjewo** (former **Onufrigowen**)
   - grave 401 – N. Åberg 1919: 166.

WEST LITHUANIAN GROUP

61. **Aukštkiemiai** (former **Oberhof**)
- grave 107 – N. Åberg 1919: 167.
- loose finds (2 specimens) – N. Åberg 1919: 167.

72. **Laistai** (former **Leisten**)
- grave 6 – N. Åberg 1919: 167.

81. **Rubokai** (former **Rubocken**) (2 specimens) – N. Åberg 1919: 166.

LOWER NEMUNAS GROUP

92. **Greižėnai** (former **Greyszönen**)
- grave XI – A. Bezzenberger 1900: 145.
- grave without number (Männer-Grab) – A. Bezzenberger 1900: 138; N. Åberg 1919: 166.

SUDOVIAN CULTURE, GOŁDAP AREA

104. **Boćwinka** (former **Alt-Bodschwingken**)
- barrow II, urn 2 – K. Stadie 1919b: 423.
- barrow X, grave 2C – K. Stadie 1919b: 430.
- barrow X, grave 2E – K. Stadie 1919b: 430.
- barrow XV, urn 9 – K. Stadie 1919b: 434.

107. **Grunajki** (former **Gruneyken**)
- barrow C (iron) – K. Stadie 1919a: 411.
- loose finds (6 specimens) – N. Åberg 1919: 165.

110. **Pietrasze** (former **Pietraschen**) – N. Åberg 1919: 166.

SUDOVIAN CULTURE, SUWAŁKI AREA

114. **Korkliny**
- barrow 3, grave 5 – J. Jaskanis 1968: 316–318, Pl. V, 6.

117. **Osowa**, site 1
- barrow 53 (iron, with flat bow) – J. Jaskanis 1961: 147, Pl. III, 6.

119. **Suchodoły**
- barrow 3, grave 2 (?) (with flat end of the foot) – O. Kleemann 1941: 59, Fig. 5; M. Kaczyński 1958b: 150–151, Fig. 4.

CENTRAL LITHUANIAN GROUP

128. **Plinkaigalis**
- grave 27 – V. Kazakevičius 1993: 142, Fig. 166: 2.

SEMIGALLIAN FLAT CEMETERIES GROUP

148. **Kokumuiža**
- deposit I (2 specimens) – V. Urtans 1977: 138–142, Fig. 45, 1–2; ibid. bibliography.

Germanic lands

GOTLAND

163. **Bjärby** – SHM 7648:1; see B. Nerman 1935: 68–70, 133, Fig. 373.

167. **Gotland**, unknown site – SHM 8161:3; see B. Nerman 1935: 69.

170. **Hablingbo parish** (with the metope on the top of the bow) – B. Nerman 1935: 69, Textfig. 148.

174. **Hemse** – GF C.9824.

175. **Högbro** – SHM 11472; see B. Nerman 1935: 68–69, Textfig. 144.

176. **Kälder**
- grave 11 – SHM 11743:11; see B. Nerman 1935: 69, 116–117, Textfig. 147.

181. **Roes** (Grötlingbo parish)
- grave (with the flat end of the foot) – SHM 4535; see B. Nerman 1935: 68–70, 112–113, 133, Fig. 366.

182. **Roes** (Rone parish) – SHM 18331; see B. Nerman 1935: 68–70, 133, Fig. 367.

ÖLAND

190. **Bo** – KLM 2938; see N. Åberg 1923: 125 footnote 1.

193. **Dörby** – KLM 7533; see N. Åberg 1923: 125 footnote 1.

195. **Folkeslunda** – SHM 51.

198. **Greby** – SHM without no.

205. **Kåtorp** – SHM 7871:159; see N. Åberg 1923: 125 footnote 1.

215. **Sandby** (2 specimens, one with flat end of the foot) – KLM 21361; SHM 1985:1847:75; see N. Åberg 1923: 125 footnote 1.

218. **Torsborg** – KLM 131; see N. Åberg 1923: 125 footnote 1.

219. **Torslunda** – SHM 9038:4; see N. Åberg 1923: 125 footnote 1, Fig. 207.

222. **Vi Alvar**,
- grave – SHM 21617: 172.

BORNHOLM

234. **Kobbeå**
- grave 11 – NM C 6166–73; see M. Schulze-Dörrlamm 1986: 650–652, Fig. 73b; A. Nørgård Jørgensen 1991a: 137, Fig. 17: 6.

242. **Møllegård**
- settlement's loose find – BMR 1235 x 44.

252. **Smørenge**
- settlement's loose find – BMR 766 x 231.

255. **Sorte Muld**
- settlement's loose find – BMR 1191 x 791 R. Db.

WIELBARK CULTURE

328. **Frombork** (former **Frauenburg**)
- hoard (5 specimens) – F. E. Peiser & H. Kemke 1914: 61–62, Pl. I, 1–5; N. Åberg 1919: 165.

332. **Skowarcz** (former **Schönwarling**) – Gothiskandza 1939: 71, Fig. 1; M. Schulze-Dörrlamm 1986: 650–652, Fig. 72: 2.

Finnish lands

TARAND CULTURE

356. **Kohtla Järve I** – M. Schmiedehelm 1955: 134, Fig. 32: 6.

Slavic lands

KIEV CULTURE

388. **Babina Gora** – M. Kazanski 2000; Fig. 6: 5

Appendix C
Crossbow brooches. Type Dollkeim/Kovrovo, intermediate variant

Balt lands

DOLLKEIM/KOVROVO CULTURE

5. former **Greibau** – N. Åberg 1919: 164.
6. **Gurevsk** (former **Traussitten**) – N. Åberg 1919: 164.
8. **Kovrovo** (former **Dollkeim**)
   - grave 115 – O. Tischler & H. Kemke 1902: 22, Pl. V, 9.
   - grave 128 – O. Tischler & H. Kemke 1902: 22, Pl. V, 8.
   - grave 155 (2 specimens) – O. Tischler & H. Kemke 1902: 24, Pl. V, 7.
12. **Lyublino** (former **Serappen**)
   - grave 25 – O. Tischler & H. Kemke 1902: 36, Pl. V, 5.
29. **Putilovo** (former **Corjeiten**) (3 specimens) – N. Åberg 1919: 163.

BOGACZEWO CULTURE

45. **Grądy Kruklaneckie** (former **Grunden**) (2 specimens) – N. Åberg 1919: 165.

SUDOVIAN CULTURE, GOŁDAP AREA

104. **Boćwinka** (former **Alt-Bodschwingken**) – N. Åberg 1919: 165.
107. **Grunajki** (former **Gruneyken**)
   - grave V, urn II – N. Åberg 1919: 165.

CENTRAL LITHUANIAN GROUP

121. **Diktariai**
   - grave 1 (iron) – S. Urbanavičienė 1995: 173, Fig. 3: 1.

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

136. **Kalniškiai**
   - grave 91 – unpublished materials from cemetery excavated by V. Kazakevičius, Lithuanian Academy of Science.

Germanic lands

GOTLAND

167. **Gotland**, unknown site (2 specimens) – SHM without no; see N. Lithberg 1928: 194, 197, Fig. 97.
169. **Guldrupe** – SHM 1300:3; see B. Nerman 1935: 68–70, 133, Fig. 372.
170. **Hablingbo parish** – SHM 8603.
172. **Hallbjens**
   - grave – SHM 1131; see B. Nerman 1935: 68–70, 118, 133, Fig. 371.

ÖLAND

193. **Dörby** – KLM 8 376; see N. Åberg 1923: 125 footnote 1.
199. **Himmelsberga** – SHM 1985: 1847: 68; see N. Åberg 1923: 125 footnote 1.
207. **Långrälla** – KLM 4760; see N. Åberg 1923: 125 footnote 1.
211. **Öland,** unknown site (2 specimens) – KLM 2037, KLM 134; see N. Åberg 1923: 125 footnote 1.
212. **Övre Ålebäck** – KLM 3142; see N. Åberg 1923: 125 footnote 1.
213. **Rosenborg** – SHM 6744.
220. **Triberga** – KLM 117; see N. Åberg 1923: 125 footnote 1.
221. **Valsnäs** – SHM 9170: 1253; see N. Åberg 1923: 125 footnote 1.

Appendix D
Crossbow brooches. Type Dollkeim/Kovrovo

Balt lands

DOLLKEIM/KOVROVO CULTURE

1. **Berezovka** (former **Groß Sausgarten**),
   - grave 32 (silver specimen) – K. Stadie 1919c: 447.
3. former **Eisliethen**
   - grave 43 – A. Jentzsch 1896: 120, Pl. VII, 27.
   - grave 56 – A. Jentzsch 1896: 121, Pl. II, 17.
   - grave 66 – A. Bezzenberger 1914: 255.
   - grave 141 (2 specimens) – A. Jentzsch 1896: 121, Pl. II, 21.
   - grave 241 (2 specimens) – A. Jentzsch 1896: 122, Pl. II, 8, 20.
8. **Kovrovo** (former **Dollkeim**)
   - grave 96 – O. Tischler & H. Kemke 1902: 21.
   - grave 98 – O. Tischler. & H. Kemke 1902: 21.
   - grave 106 – O. Tischler & H. Kemke 1902: 22, Pl. V, 21; N. Åberg 1919: 163.
   - grave 109 – O. Tischler. & H. Kemke 1902: 22.
   - grave 115 – O. Tischler & H. Kemke 1902: 22.
   - grave 128 – O. Tischler & H. Kemke 1902: 22–23.
9. **Lermontovo** (former **Wogau**)
   - grave 7 (with relief ornament and niello) – O. Tischler & H. Kemke 1902: 46, Pl. IV, 27.
13. former **Löbertshof** (3 specimens) – N. Åberg 1919: 164.
22. **Pesochnoe** (former **Detlevsruh**)
   - grave 1 – E. Hollack 1914: 267.
   - grave 2b (3 specimens) – E. Hollack 1914: 268.
   - grave 8 – E. Hollack 1914: 271.
   - grave 15 – E. Hollack 1914: 274–275.
   - grave 18b – E. Hollack 1914: 276.
   - grave 22 – E. Hollack 1914: 278.
   - grave 23 – E. Hollack 1914: 278.
23. **Pionerskij-Zarechye "Gora Velikanov"** (former **Rantau "Hünnenberg"**)
   - grave 84 – V. I. Kulakov 1994: Fig. 92.
   - grave 106 – V. I. Kulakov 1994: Fig. 40.
   - loose find – W. Grunert 1944: 24, Fig. 11a.
24. former **Plauen** – N. Åberg 1919: 164.
25. **Podgórze** (former **Huntenberg**)
   - grave 5 – F. E. Peiser 1919b: 337–338.
26. **Povarovka** (former **Kirpehnen**) – N. Åberg 1919: 164.
27. **Prostornoe** (former **Seefeld**) (2 specimens) – N. Åberg 1919: 164.
30. **Rovnoe** (former **Pollwitten**)
   - grave 86 (2 specimens) – O. Tischler & H. Kemke 1902: 35.
   - grave 102 (2 specimens) – O. Tischler & H. Kemke 1902: 35.
   - grave 103 (2 specimens) – O. Tischler & H. Kemke 1902: 35.
31. **Samland**, unknown site – N. Åberg 1919: 164.
35. **Telmanovo** (former **Althof-Insterburg**)
   - grave 29 – W. Grunert 1936: 131, 134–135, Fig. 14; 1937: 42, Fig. 62a.
38. former **Warengen**
   - grave 5 – J. Heydeck 1909a: 227.
39. former **Warnikam**
   - grave 55A – O. Tischler & H. Kemke 1902: 44, Pl. IV, 25.
   - grave 67 – N. Åberg 1919: 165.
   - grave 72 (2 specimens) – O. Tischler & H. Kemke 1902: 45, Pl. V, 23; N. Åberg 1919: 165.
40. **Yaroslavskoe** (former **Schlakalken**)
   - grave 10 – M. Jahn's archive.

BOGACZEWO CULTURE

42. **Gąsior** (former **Gonschor-Jaskowska See**)
   - grave 285e – M. Schmiedehelm 1990: 67, Pl. X, 2.
   - grave 294 – M. Schmiedehelm 1990: 68, Pl. X, 3.
   - grave 297 – M. Schmiedehelm 1990: 69, Pl. X, 7.
   - loose find (iron) – M. Schmiedehelm 1990: 88.
45. **Grądy Kruklaneckie** (former **Grunden**) (4 specimens) – N. Åberg 1919: 165.
46. **Jakunówko** (former **Jakunowken**) – MVFB Ia.1683d; see W. Nowakowski 1998: 29, 123, Pl. 24: 505.
47. **Jasieniec** (former **Groß Eschenort**) (2 specimens) – N. Åberg 1919: 165.

48. **Kosewo** (former **Kossewen**)
- grave 18 (with relief ornament) – MVFB Ia. 120; see M. Weigel 1891: 26, Fig. 19; W. Nowakowski 1998: 113, Pl. 10: 164.
- grave 20 – MVFB Ia 126; see M. Weigel 1891: 26; W. Nowakowski 1998: 113, Pl. 11: 172.

49. **Kruklanki** (former **Kruglanken**) (4 specimens) – MVFB Ia.1038, Ia. 1040, Ia.1041, Ia. 1042; see W. Nowakowski 1998: 27, 121, Pl. 22: 423, 425–427.

51. **Łabędziewo** (former **Labenszowen**) – J. Heydeck 1892: 180, Pl. XXII f.

52. **Miętkie** (former **Mingfen**)
- grave 418 – V. I. Kulakov 1989: 181, Fig. 13: 2.
- loose find – MVFB Ia. 887; see H. Schmidt 1906: 463, Fig. 3; W. Nowakowski 1998: 118, Pl. 17: 336.

56. **Orłowo** (former **Orlowen**) – N. Åberg 1919: 166.

59. **Wyszembork** (former **Weißenburg**) – unpublished materials from cemetery excavated by W. Nowakowski and P. Szymański, Warsaw University.

60. **Zdory** (former **Sdorren**) (silver specimen) – N. Åberg 1919: 166, Fig. 52.

WEST LITHUANIAN GROUP

61. **Aukštkiemiai** (former **Oberhof**)
- grave 75 (2 specimens) – N. Åberg 1919: 167
- grave 132 – N. Åberg 1919: 167, Fig. 58.
- grave 254 – N. Åberg 1919: 167.
- loose finds (3 specimens) – N. Åberg 1919: 167.

65. **Ģeistauti**
- grave 2 (iron) – LVM A. 9904; see Latvijas PSR ... 1974: 146, Pl. 40.
- grave 5 – LVM A. 9908.
- grave 6 – LVM A. 9909:7.
- grave 8 – LVM A. 9911:3.
- grave 14 – LVM A. 9917: 3.
- grave 17 – LVM A. 9920:3.

68. **Jazdaičiai** – H. Moora 1938: 144 footnote 1.

71. **Kapsēda** (2 specimens) – H. Moora 1929: 62.

73. **Lazdininkai**
- grave 17 (with a small crosspiece on the end of the foot) – VDKM 519:4.
- grave 57 – E. Butenienė 1968: 151, Fig. 5:1.
- loose find – E. Butenienė 1968: 151.

74. **Liepāja** – H. Moora 1929: 82; 1938: 150.

75. **Mazkatuži**, grave 18 (iron) – LVM A. 9948: 1–12.

78. **Norgėlai** (3 specimens) – H. Moora 1938: 144 footnote 1.

79. **Ošenieki** – A. Vasks & I. Virse 1990: 172, Fig. 30: 7.

81. **Rubokai** (former **Rubocken**)
- grave II (iron) – A. Bezzenberger 1909d: 149.
- grave 7 – A. Bezzenberger 1909d: 152.
- grave 14 (2 specimens, one iron) – A. Bezzenberger 1909d: 155.
- grave 21 – A. Bezzenberger 1909d: 158.
- grave 29 – A. Bezzenberger 1909d: 161.
- grave 32 – A. Bezzenberger 1909d: 164.
- grave 37 – A. Bezzenberger 1909d: 165.
- grave 42 – A. Bezzenberger 1909d: 170.
- grave 44 – A. Bezzenberger 1909d: 170.
- grave 48 – A. Bezzenberger 1909d: 171; N. Åberg 1919: 166: Fig. 60.

83. **Rudaičiai** – H. Moora 1938: 144 footnote 1.

85. **Šernai** (former **Schernen**)
- grave 101 – A. Bezzenberger 1892: 164, Fig. 15, Pl. VIII; N. Åberg 1919: 167.

86. **Tūbaušiai**
- grave 1 (with small crosspiece on the end of the foot) – R. Rimantienė 1968: 193, Fig. 11: 1.
- grave 3 – R. Rimantienė 1968: 194.
- grave 39 – R. Rimantienė 1968: 194.
- grave 40 – R. Rimantienė 1968: 194.
- grave 51 – R. Rimantienė 1968: 194, Fig. 12: 6.
- grave 52 – R. Rimantienė 1968: 194.

LOWER NEMUNAS GROUP

92. **Greižėnai** (former **Greyszönen**)
- grave II – A. Bezzenberger 1900: 139.
- grave III – A. Bezzenberger 1900: 140.
- grave IV – A. Bezzenberger 1900: 140.
- grave V – A. Bezzenberger 1900: 141.
- grave VI – A. Bezzenberger 1900: 142, Fig. 54.
- grave VII – A. Bezzenberger 1900: 143, Fig. 57; N. Åberg 1919: 166, Fig. 61.
- grave XV – A. Bezzenberger 1900: 150.
- grave XVII – A. Bezzenberger 1900: 150.

- grave without number (Frauen Grab) – A. Bezzenberger 1900: 137.
- grave without number – A. Bezzenberger 1900: 151.

94. **Mezhdurechye** (former **Groß Pillkallen**) – N. Åberg 1919: 166.

95. **Neman** (former **Ragnit Schloßberg**) (2 specimens) – N. Åberg 1919: 166.

100. **Sovetsk** (former **Tilsit**) (2 specimens) – N. Åberg 1919: 166.

102. **Vidgiriai**
- grave 2 (4 specimens) – V. Šimėnas 1988: 95–96, Fig. 10; 1996: 56–58, Fig. 20.
- grave 18 – V. Šimėnas 1996: 56–58, Fig. 21.
- grave 30 (5 specimens, one with relief ornament) – V. Šimėnas 1996: 56–58, Fig. 17.

103. **Vilkyškiai** (former **Wilkischken**) – N. Åberg 1919: 166.

SUDOVIAN CULTURE, GOŁDAP AREA

104. **Boćwinka** (former **Alt-Bodschwingken**)
- barrow I, urn 1 – K. Stadie 1919b: 421.
- barrow II, urn 2 – K. Stadie 1919b: 423.
- barrow X, grave 2A (iron) – K. Stadie 1919b: 428.
- barrow XVI, urn 6 – K. Stadie 1919b: 436.
- barrow XVI, urn 8 – K. Stadie 1919b: 436.
- barrow XVIII, urn 1 – K. Stadie 1919b: 438, Fig. 201.
- barrow XVIII, urn 2 – K. Stadie 1919b: 439.
- loose finds (2 specimens) – K. Stadie 1919b: 440.

105. **Czerwony Dwór** (former **Rothebude**) – N. Åberg 1919: 165.

107. **Grunajki** (former **Gruneyken**)
- barrow X, urn I – O. Tischler 1879: 199–200, Pl. III, 7.
- barrow XI, urn I – O. Tischler 1879: 200, Pl. III, 10; N. Åberg 1919: 165, Fig. 59.
- barrow XI, urn III – O. Tischler 1879: 202, Pl. III, 9.
- barrow XI, urn V – O. Tischler 1879: 255; 1880: no 459; H. Kemke 1901: 93.
- barrow B, urn 2 – K. Stadie 1919a: 410.
- barrow B, urn 3 – K. Stadie 1919a: 410.
- barrow B, urn 6 – K. Stadie 1919a: 410.
- barrow D, urn 4 – K. Stadie 1919a: 413.
- loose finds (2 specimens) – K. Stadie 1919a: 414; N. Åberg 1919: 165.
- loose finds (3 specimens) – MVFB, without numbers; see W. Nowakowski 1998: 124, Pl. 26: 539–541.

109. **Nowa Boćwinka** (former **Neu-Bodschwingken**)
- grave V, urn II – O. Tischler 1879: 200, 257.
- loose finds (2 specimens) – O. Tischler 1879: 200, Pl. III, 1.

110. **Pietrasze** (former **Pietraschen**) (2 specimens) – N. Åberg 1919: 166.

112. by **Węgorzewo** (former **Angerburg**) – Pisanski collection, MVFB II. 575; see W. Nowakowski 1998: 40, 127, Pl. 30: 633.

SUDOVIAN CULTURE, SUWAŁKI AREA

113. **Bilwinowo**
- barrow 1, grave 1 – M. Kaczyński 1961: 210–211, Pl. VI, 1.
- barrow 5, grave 2 – M. Kaczyński 1961: 216, Pl. VII, 7.
- barrow 8, grave 4 – M. Kaczyński 1961: 230, Pl. XI, 10.
- barrow 10, grave 5 – M. Kaczyński 1961: 238, Pl. XII, 6.

115. **Netta**, site I
- grave 42A – M. Kaczyński 1976: 277, Fig. 6.

116. **Osinki**, site 4
- barrow II, grave 1 – MOB MB/A/202, kat. 339.
- barrow II, grave 5 – MOB MB/A/202, kat. 341.
- barrow II, grave 9 – MOB MB/A/202, kat. 344.
- barrow III, grave 8 (iron) – MOB MB/A/607.
- barrow III, grave 12 (iron) – MOB MB/A/607.

118. **Prudziszki**, site I
- barrow 2, grave 8 – M. Kaczyński 1958a: 123, Pl. XXXVI, 4.
- barrow 9, grave 2 (with small crosspiece at the end of the foot) – M. Kaczyński 1958a: 133, Pl. XL, 8.

119. **Suchodoły**
- barrow 3, grave 2 (?) – O. Kleemann 1941: 59, Fig. 5; M. Kaczyński 1958b: 150–151, Fig. 4.

120. **Wołownia**
- barrow 3, grave 7 (iron) – M. Kaczyński 1966: 182, Pl. IX, 1.

CENTRAL LITHUANIAN GROUP

122. **Graužiai**
- grave 1 – LNM AR 503: 67.

123. **Marvelė**
- grave 278
- grave 282
- grave 292
- grave 295
- grave 303
- grave 309
- grave 320
- grave 322
- grave 323
- grave 324
- grave 338
- grave 340
- grave 355
- grave 409
- grave 467
- grave 612
- grave 694
- grave 695
- grave 725

(unpublished materials from cemetery excavated by A. Astrauskas, Vilnius University, Lithuania)

124. **Obeliai**
- grave 14 – V. Urbanavičius & S. Urbanavičienė 1988: 17–18, Fig. 11: 7.

125. **Panevėžinkas** – H. Moora 1938: 144 footnote 1.

126. **raj. Panevėžys**, unknown site – H. Moora 1938: 144 footnote 1.

127. **Pašušvys** (10 specimens, among them two iron ones) – LNM EM 5: 181; EM 5: 191; EM 5: 193; see H. Moora 1938: 144 footnote 1.

128. **Plinkaigalis**
- grave 16 (2 specimens) – V. Kazakevičius 1993: 103.
- grave 37 – V. Kazakevičius 1993: 104, Fig. 109: 9.
- grave 40 – V. Kazakevičius 1993: 104, Fig. 166: 12.
- grave 45 (2 specimens) – V. Kazakevičius 1993: 103, Figs. 130: 3–4; 166: 17.
- grave 52 – V. Kazakevičius 1993: 144, Figs. 42: 3, 166: 1.
- grave 57 – V. Kazakevičius 1993: 104, Fig. 139: 2.
- grave 76 (iron) – V. Kazakevičius 1993: 105, Fig. 170.
- grave 78 – V. Kazakevičius 1993: 105, Fig. 169.
- grave 79 – V. Kazakevičius 1993: 104, Fig. 131: 2.
- grave 80 – V. Kazakevičius 1993: 104, Figs. 167: 1; 205: 5.
- grave 82 – V. Kazakevičius 1993: 147, Fig. 166: 10.
- grave 92 – V. Kazakevičius 1993: 104, Fig. 123: 6.
- grave 164 – V. Kazakevičius 1993: 104, Fig. 166: 5.
- grave 178 – V. Kazakevičius 1993: 155, Fig. 166: 25.
- grave 179 (iron) – V. Kazakevičius 1993: 103, Fig. 166: 13.
- grave 186 – V. Kazakevičius 1993: 105, Fig. 144: 4.
- grave 332 – V. Kazakevičius 1987: 50–51, Fig. 11; 1993: 166
- grave 344 – V. Kazakevičius 1993: 168, Fig. 166: 21.
- grave 353 – V. Kazakevičius 1993: 105, Figs. 166: 6, 171.
- grave 355 – V. Kazakevičius 1993: 168, Fig. 166: 6
- grave 356 – V. Kazakevičius 1993: 168–169, Fig. 166: 23.
- loose finds (8 specimens) –V. Kazakevičius 1993: 103, Fig. 166: 4, 9.

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

130. **Dargaliai** – LNM AR 560: 9.

131. **Dingailiai** – B. Dakanis 1991: 13, Fig. 2: 2.

132. **Gilvyčiai** – Senovės... 1958: 331, Fig. 315.

133. **Jakštaičiai-Meškiai**
- grave 82 – LNM AR 630: 431.

134. **Junkilai** – H. Moora 1938: 144 footnote 1.

135. **Kairėneliai**
- grave 14 – LNM AR 632; see J. Stankus 1984: 73, Fig. 9: 6.

136. **Kalniškiai**
- grave 27
- grave 43
- grave 44
- grave 45
- grave 47
- grave 57
- grave 69 (with small crosspiece on the end of the foot)
- grave 70
- grave 85
- grave 88
- grave 98
- grave 105
- grave 107
- grave 111
- grave 112
- loose finds (2 specimens)

(unpublished materials from cemetery excavated by V. Kazakevičius, Lithuanian Academy of Science)

137. **Maudžiorai**
- grave 115 – V. Valatka 1984: 20, Fig. 14: 1.

138. **Pagrybis**
- grave 38 – L. Vaitkunskienė 1995: 18, Fig. 21.
- grave 61 – L. Vaitkunskienė 1995: 23, Fig. 166: 1.
- grave 116 – L. Vaitkunskienė 1995: 34, Fig. 189: 4.
- grave 134 – L. Vaitkunskienė 1995: 37, Fig. 119: 2.
- grave 200B – L. Vaitkunskienė 1995: 54, Fig. 212: 3.
- loose find – L. Vaitkunskienė 1995: 119, Fig. 167: 2.

139. **Sauginiai**
- loose find – LNM AR 507: 142.

141. **Šarkai**
- grave 4 – LNM AR 528: 28, see B. Tautavičienė 1984: 35–36, Fig. 9: 2.
- grave 10 – LNM AR 528:119; see B. Tautavičienė 1984: 35–36, Fig. 19: 6.
- loose find – B. Tautavičienė 1984: 35–36, Fig. 15: 4.

142. **Viekšniai** – H. Moora 1938: 144 footnote 1.

SEMIGALLIAN FLAT CEMETERIES GROUP

145. **Bukaiši** – J. Siatkovskis 1984: 80, Fig. 16: 3.

146. **Grīnerti**
- grave 2 – LVM A.9031:1; see Latvijas PSR... 1974: 158, Pl. 41: 7.
- grave 5–6 – LVM A.9034:6.

147. **Jauneikiai**
- grave 398 – LNM AR 533; see I. Vaškevičiūtė 1987: 25.
- loose finds (3 specimens) – LNM AR 533; see I. Vaškevičiūtė 1987: 25.

148. **Kokumuiža**
- deposit I (3 specimens) – V. Urtans 1977: 138–142, Fig. 45: 3–4; earlier literature ibid.

149. **Liekņi** – H. Moora 1938: 150, 692.

152. **Pļavniekkalns**
- grave XVI – H. Moora 1929: 99–100; 1938: 150.
- grave XIX – H. Moora 1929: 100; 1938: 150.
- grave XXIV – H. Moora 1929: 102, Pl. IX, 7; 1938: 147.
- grave 36 – H. Moora 1938: 150, 700.
- loose finds (2 specimens) – H. Moora 1929: 105, 109, Pl. IX, 8; 1938: 147, 150.

153. **Reņge** – H. Moora 1929: 114.

154. **Rūsiši-Debeši**
- grave 13 – LVM A.10078: 12.
- hoard – LVM A. 9510: 1–13; see V. Urtans 1977: 148, Fig. 52: 2.

EAST LITHUANIAN BARROWS CULTURE

156. **Grabijolai** – H. Moora 1938: 144 footnote 1.

157. **Taurapilis**
- barrow 1 (iron) – A. Tautavičius 1981: 33, Fig. 36: 5.

EAST LATVIAN FLAT CEMETERIES GROUP

158. **Jaunjelgava** (3 specimens) – H. Moora 1929: 51; 1938: 149.

161. **Kunci** – E. Šnore 1982: 123, Fig. 19: 2.

Germanic lands

GOTLAND

162. **Barshaldershed**
- grave – SHM 19535; see B. Nerman 1935: 68–70, 112–113, 133, Fig. 370.

164. **Bjärs**
- grave 16 – SHM 6144:16; see B. Nerman 1935: 69, 116–117.

165. **Broa** – SHM 3712; see B. Nerman 1935: 69.

166. **Brucebo**
- grave 5 – SHM 11351:5; see B. Nerman 1935: 68–70, 116–117, 134; Fig. 374.

167. **Gotland**, unknown site (8 specimens) – GF C.8018; GF C.8019; SHM 7571: 258; SHM 17343: 1525; SHM without no; SHM 2976: 77; SHM 12195: 1; see B. Nerman 1935: 69; Textfig. 146.

168. **Grötlingbo parish** (2 specimens) – SHM 11321; SHM 9836; see B. Nerman 1935: 68-70, 133, Fig. 369.

171. **Hallgårds** – SHM 11469; see B. Nerman 1935: 69.

173. **Havor**
- grave 183 – SHM 8064:183; see B. Nerman 1935: 69, 114–115.

177. **Klinte parish** – SHM 7873; see B. Nerman 1935: 69.

178. **Lau parish** – GF C.8462.

179. **Medebys** – GF C.3815; see B. Nerman 1935: 68–70, 133, Fig. 368.

180. **Mellings** – SHM 14479: a; see B. Nerman 1935: 68–70, 134, Fig. 375.

181. **Roes (Grötlingbo parish)** – SHM 7871: 131; see B. Nerman 1935: 68–69, Textfig. 145.

183. **Rundarve** – GF C.8193.

184. **Salands**
- grave – U. Silvén 1956: 97–110, Fig. 2: 3.

185. **Sandegårda** – SHM 7480 f–h; see B. Nerman 1935: 69.

186. **Sjonhem parish** – GF C.6769; see B. Nerman 1935: 69.

187. **Tjängdarve** – SHM 7681:1; see B. Nerman 1935: 69.

ÖLAND

188. **Algutsrum** – KLM 4718; see N. Åberg 1923: 125 footnote 1.

189. **Bläsinge** (2 specimens) – KLM 4633; KLM 13457; see N. Åberg 1923: 125 footnote 1.

191. **Borgholms slott** – SHM 3033; see N. Åberg 1923: 125 footnote 1, Fig. 206.

192. **Borstorp** (2 specimens) – SHM 12189: 5; KLM 2959; see N. Åberg 1923: 125 footnote 1.

193. **Dörby** (2 specimens) – KLM 5701; SHM 4802; see N. Åberg 1923: 125 footnote 1, Fig. 209.

194. **Eketorp** (4 specimens) – K. Borg, U. Näsman & E. Wegraens 1976: Fig. 35; M. Iversen & U. Näsman 1977: Fig. 6.

197. **Gråborg** (4 specimens) – KLM 15875; KLM 15876; KLM 20740; KLM 1248.

200. **Högsrum parish** (2 specimens) – SHM without no; SHM 12326:4; see N. Åberg 1923: 125 footnote 1.

201. **Holmetorp** (2 specimens) – KLM 3052; KLM 3042; see N. Åberg 1923: 125 footnote 1.

204. **Kaplansborklet** – SHM 5988:4.

205. **Kåtorp** – KLM 19; see N. Åberg 1923: 125 footnote 1.

206. **Långlöt parish** – SHM 1304:1836:38; see N. Åberg 1923: 125 footnote 1.

208. **Lenstad** – SHM 4812; see N. Åberg 1923: 125 footnote 1.

209. **Lundegård** – SHM 7727; see N. Åberg 1923: 125 footnote 1.

211. **Öland**, unknown site (4 specimens) – SHM 7545; SHM without no (2 specimens); LUHM 12771; see N. Åberg 1923: 125 footnote 1.

212. **Övre Ålebäck** – KLM 4972; see N. Åberg 1923: 125 footnote 1.

214. **Runsten** – SHM 1985: 1847: 37.

216. **Skogsby** – SHM 1304: 13.

217. **Södra Kvinneby**
- grave – SHM 8881; see M. Stenberger 1933: 63, Fig. 43.

219. **Torslunda** – KLM 131.

BORNHOLM

224. **Alstenbakke/Saltuna** – NM C 25526; see O. Klindt-Jensen 1957: 235 no 18, Fig. 89: 4.

237. **Lille Loftsgård**
- settlement's loose find – BMR 2288 x 1.

245. **Rabækkegård**
- settlement's loose find – BMR 2151 x 26.

247. **Rytterbakken**
- settlement's loose find – BMR 750 x 76.

249. **Saltuna**
- grave – NM C 5714; see O. Klindt-Jensen 1957: 235 no 19, Fig. 87: 8.

252. **Smørenge**
- settlement's loose find – BMR 766 x 282.

SCANIA

261. **Scania**, unknown site – LUHM 13018.

WIELBARK CULTURE

328. **Frombork** (former **Frauenburg**)
- hoard (2 specimens) – F. E. Peiser & H. Kemke 1914: 62, Pl. I, 6–7.

DĘBCZYNO GROUP

337. **Witkowo** (former **Vietkow**)
- two graves mixed – H. Eggers 1959: 17, Pl. 2D; K. Godłowski 1981: 72, Fig. 6a; H. Machajewski 1992b: 75, Fig. 2C.

Finnish lands

TARAND CULTURE

343. **Essu** (2 specimens) – H. Moora 1938: 145 footnote 1.

348. **Kalvi** (2 specimens) – H. Moora 1938: 145 footnote 1.

352. **Kirimäe**
- grave (5 specimens) – M. Schmiedehelm 1926: 5–6, 18–19, Figs. 3–5.

354. **Kirna** – H. Moora 1938: 145 footnote 1.

356. **Kohtla Järve I** – M. Schmiedehelm 1955: 134, Fig. 32: 2.

357. **Köönikänmäki**
- barrow III – A. Hackman 1905: 56–57, 153, Pl. 2: 5.

358. **Kukkuranmäki** – E. Kivikoski 1947: 31.

360. **Liimala** – H. Moora 1938: 145 footnote 1.

362. **Malaks** (?) – A. Hackman 1905: 74, 153, Pl. 2: 4.

363. **Notsjö** – A. Hackman 1905: 71–72, 153, Pl. 3: 1.

365. **Ojaveski** – A. Friedenthal 1935: 18, Fig. 13: 7.

371. **Pikkjärve** (former **Langensee**) – KAR 1896: 33, Pl. 5:9.

372. **Piltene** – H. Moora 1929: 90; 1938: 149.

373. **Purdi** – H. Moora 1938: 145 footnote 1.

374. **Rauna** – H. Moora 1929: 112, Pl. IV, 8; 1938: 147.

375. **Raudna** – H. Moora 1938: 145 footnote 1.

379. **Roismala** – A. Hackman 1905: 66–67, 153, 158, Pl. 3: 3.

380. **Saarema** – H. Moora 1938: 145 footnote 1.

381. **Tervajoki** – A. Hackman 1905: 92–93, 153, Pl. 2: 7.

383. **Unipiha** (former **Unnipicht**) – H. Moora 1938: 145 footnote 1.

386. **Verevi** – H. Moora 1938: 145 footnote 1.

Slavic lands

KIEV CULTURE

390. **Dneper basin**, unknown site – M. Kazanski 2000: Fig 6: 7.

Appendix E
Crossbow brooches. Type Dollkeim/Kovrovo, Lithuanian variant

DOLLKEIM/KOVROVO CULTURE

33. **Solechnoe** (former **Praddau**) – N. Åberg 1919: 164.

WEST LITHUANIAN GROUP

62. **Barvai** (former **Barwen**)
    - grave IV, 9 – N. Åberg 1919: 166.
    - loose finds (2 specimens) – N. Åberg 1919: 166.
63. **Degliai** (former **Degeln bei Prökul**) – N. Åberg 1919: 166.
64. **Dvyliai** (former **Stolzentietz**) – N. Åberg 1919: 167.
69. **Jurgaičiai**
    - grave 1– L. Nakaitė 1972: 112, footnote 43.
    - grave 7 – L. Nakaitė 1972: 112, Figs. 3, 10: 4.
    - grave 23 – L. Nakaitė 1972: 112, footnote 43.
    - grave A – L. Nakaitė 1972: 112, footnote 43.
    - loose find – L. Nakaitė 1972: 112, footnote 43.
76. **Metirkviečiai** (former **Metterkweten**) – N. Åberg 1919: 166.
88. **Vilkų Kampas**
    - grave 5 – L. Nakaitė 1970: 51, Fig. 9: 1; E. Griciuvienė & A. Tautavičius 1994: 90.
89. **Vilkyčiai** (former **Wilkieten**) (8 specimens) – N. Åberg 1919: 167
90. former **Weszeiten** (14 specimens) – N. Åberg 1919: 166, Fig. 62.

LOWER NEMUNAS GROUP

94. **Mezhdurechye** (former **Groß Pillkallen**) (2 specimens) – N. Åberg 1919: 166.
98. **Rambynas** (former **Rombinus**) (2 specimens) – N. Åberg 1919: 166.
99. **Rzhevskoe** (former **Linkuhnen**)
    - grave 66 (2 specimens) – C. Engel 1932: 170, Fig. 86.
100. **Sovetsk** (former **Tilsit**) – N. Åberg 1919: 166.
103. **Vilkyškiai** (former **Wilkischken**) – N. Åberg 1919: 166.

CENTRAL LITHUANIAN GROUP

123. **Marvelė**
    - grave 279
    - grave 297

    (unpublished materials from the cemetery excavated by A. Astrauskas, Vilnius University)

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

136. **Kalniškiai**
    - grave 51 – unpublished materials from cemetery excavated by V. Kazakevičius, Lithuanian Academy of Science.
138. **Pagrybis**
    - grave 38 – L. Vaitkunskienė 1995: Fig. 21.
    - grave 85 – L. Vaitkunskienė 1995: 28–29, Fig. 118: 1.
    - grave 134 – L. Vaitkunskienė 1995: 37, Fig. 119: 2.
    - grave 184 – L. Vaitkunskienė 1995: 49, Fig. 191: 5.
    - loose find – LNM AR 552: 15.

SEMIGALLIAN FLAT CEMETERIES GROUP

147. **Jauneikiai**
    - grave 393 – LNM AR 533; see I. Vaškevičiūtė 1987: 25, Fig. 1: 2.
    - grave 424 – LNM AR 533; see I. Vaškevičiūtė 1987: 25.

Appendix F
Crossbow brooches. Type Bornholm

[according specimens from Bornholm – if there is no information about find's circumstances, the brooches were found at the settlements as the detector finds]

Variant Melsted

BORNHOLM

229. **Brændesgård "Kanonhøj"** – BMR 1430 x 14.

231. **Bukkegård** – BMR 1171 x 20.

233. **Heslegård**
- grave 11 – NM C 7521; see E. Vedel 1897: 131; O. Klindt-Jensen 1957: 234 no 14, Fig. 87: 10.

234. **Kobbeå**
- grave 11 – NM C 6166–73; see A. Nørgård Jørgensen 1991a: 137, Fig. 17: 4.

236. **Levka**
- grave 2 – BMR 1119 x 80 A/B/C; see J. Seit Jespersen 1986: 101–108, Fig. 4f.

239. **Melsted**
- grave 8 – NM C 2946; see O. Klindt-Jensen 1957: 234 no 8, Fig. 87: 11.

240. **Melsted-Sandhuset**
- grave 11 – NM C 4124; see O. Klindt-Jensen 1957: 234, Fig. 87: 6.

241. **Møllebakken**
- grave 1 (2 specimens) – NM C 7, 8; see O. Klindt-Jensen 1957: 234 no 6, Fig. 87: 7, 9.
- grave 2 – NM C 35; see O. Klindt-Jensen 1957: 234 no 6, Fig. 88: 3.

242. **Møllegård** – BMR 1235 x 5.

244. **Nygård** (Klemensker parish) – BMR 2001 x 5.

248. **Runegård** – BMR 677 x 1832.

251. **Skovgård-Vest** – BMR 1640 x 8.

255. **Sorte Muld** – BMR 1191 x 801 R. Db.

SCANIA

260. **Gårdlösa**
- grave 72 – B. Stjernquist 1977: 71–72, Fig. 3: 15.

263. **Uppåkra** – M. Strömberg 1961: 18, Pl. 54: 2.

NORWAY

271. **Åk**
- grave – C 5870–75; see O. Montelius 1896: 241, Fig. 89.

DĘBCZYNO GROUP

336. **Głuszyno**, site 1
- grave I (object 11) (2 specimens) – H. Machajewski 1992b: 75, Fig. 5A: 1–2; 1995: 203–206, Fig. 18: 1–2.

Variant Levka

BORNHOLM

225. **Baggård** – BMR 1715 x 4.

227. **Bokul**
- grave 7 – NM C 3992; see O. Klindt-Jensen 1957: 234 no 5.

229. **Brændesgård "Kanonhøj"** (5 specimens) – BMR 1430 x 82, x 83, X 88, x 109, x 110.

230. **Brændesgård** – BMR 1653 x 16.

231. **Bukkegård** – BMR 1171 x 18.

232. **Dalshøj** (2 specimens) – BMR 1639 x 49, x 50.

236. **Levka**
- grave 2 – BMR 1119 x 57; see J. Seit Jespersen 1986: 101–108, Fig. 4a.

238. **Lille Myregård** – BMR 1233 x 3.

242. **Møllegård** (6 specimens) – BMR 1235 x 10, x 15, x 16, x 45, x 99, x 162.

244. **Nygård** (Klemensker parish) – BMR 2001 x 1.

247. **Rytterbakken** (2 specimens) – BMR 750 x 122.

250. **Sandegård** (5 specimens) – BMR 1371 x 112, x 113, x 182, x 304, x 305.

254. **Sønder Ellebygård** – BMR 1524 x 8.

255. **Sorte Muld** (3 specimens – one with metope on the bow) – BMR 1191 x 831 R. Db. x Y12–K; see O. Klindt-Jensen 1957: Fig. 87: 1.

256. **Store Gadegård** – BMR 1978 x 11.

257. **Strandmarken v/Nexø**
- grave 6 – NM C 4107; see O. Klindt-Jensen 1957: 234, Fig. 85: 3.

258. **Vasegård** – BMR 1996 x 12.

JUTLAND

264. **Bondesgård** – C.J. Becker 1973: 18, Fig. 2.

Variant Sorte Muld

BORNHOLM

232. **Dalshøj**
   - house A (2 specimens) – O. Klindt-Jensen 1957: 185–186, Fig. 14: 1–2.
   - loose finds (2 specimens) – BMR 1639 x 75, x 76.

240. **Melsted-Sandhuset**
   - grave 2 (?) – NM C 2922; see O. Klindt-Jensen 1957: 234.

244. **Nygård** (Klemensker parish) – BMR 2001 x 16.

246. **Rødbjerg/Tornbygård** (2 specimens) – BMR 1611 x 14, x 24.

252. **Smørenge** – BMR 1469 x 18.

255. **Sorte Muld** – BMR 1119 x 298.

ÖLAND

210. **Mossberga bog** – SHM 2125; see N. Åberg 1923: 125 footnote 1.

Variant unknown

BORNHOLM

223. **Agerbygård/Bakkegård** – BMR 1523 x 72.

226. **Bakkegård** – BMR 1523 x 5.

227. **Bokul**
   - grave 12 – NM C 3997; see O. Klindt-Jensen 1957: 234 no 5, Fig. 87: 2.

229. **Brændesgård "Kanonhøj"** (3 specimens) – BMR 1430 x 46, x 84, x 85.

230. **Brændesgård** – BMR 802 x 10.

235. **Kølleregård** (2 specimens) – BMR 789 x 142, x 165.

236. **Levka**
   - grave 2 – BMR 1119 x 80 A/B/C; see J. Seit Jespersen 1986, Fig. 4e.

242. **Møllegård** (2 specimens) – BMR 1235 x 87, x 163.

243. **Nygård** (Hasle parish) – BMR 2159 x 5.

246. **Rødbjerg/Tornbygård** – BMR 1611 x 26.

247. **Rytterbakken** – BMR 750 x 123.

250. **Sandegård** (3 specimens) – BMR 1371 x 21, x 185, x 306.

253. **Soldatergård** – BMR 1756 x 2.

DĘBCZYNO GROUP

336. **Głuszyno**, site 1
   - grave I (object 11) – H. Machajewski 1992b: 75, Fig. 5A: 3; 1995: 203–206, Fig. 18: 3.

Appendix G
Crossbow brooches with star- and spade-like foot

Type I

Balt lands

DOLLKEIM/KOVROVO CULTURE

4. former **Grebieten**
   - grave S. 111 – J. Heydeck 1888: 247.

39. former **Warnikam**
   - grave 25 – O. Tischler & H. Kemke 1902: 43, Pl. IV, 9; N. Åberg 1919: 160.
   - grave 71 – O. Tischler & H. Kemke 1902: 45, Pl. IV, 10; N. Åberg 1919: 161.

BOGACZEWO CULTURE

58. **Worpławki** (former **Worplack**) – Alt-Preußen 1936: 32.

Germanic lands

WIELBARK CULTURE

329. **Malbork-Wielbark** (former **Willenberg**)
   - grave 222 – R. Schindler 1940: 118, 161, Fig. 77; K. Godłowski 1981: 67–69, Fig. 2.

330. **Pruszcz Gdański** (former **Praust**), site 5
   - grave 24 – M. Pietrzak 1998: 122–123, Fig. 2.

331. **Rakowiec** (former **Groß Krebs**)
   - grave 2 – W. Heym 1939: 5–6, Fig. 2; E. Meyer 1960: 230, 241, 316, Fig. 73.

332. **Skowarcz** (former **Schönwarling**) – W. La Baume 1925: 26, Fig. 9.

DĘBCZYNO GROUP

333. **Dębczyno**, site 3
   - feature 300 (semisunked hut) – C. Strzyżewski 1975: 163-179; K. Godłowski 1980: 69–70, Figs. 1: 2, 5; 5; 1981: 83–85, Figs. 16–18.

334. **Dębczyno**, site 6
   - feature 47 (semisunked hut) – H. Machajewski 1985, Pl. 331: 1, 2.

335. **Dzierżęcin** (former **Dörsenthin**), site 3
   - grave 22 – D. von Kleist 1940: 190, Pl. 48: 1; 1955: 25–26, Pl. 28: 1; K. Godłowski 1980: 65, Fig. 1: 4; 1981: 68, Fig. 1b.

336. **Głuszyno**, site 1
   - grave 1 – H. Machajewski 1995: 160, Fig. 10: 1.

ELBIAN CULTURE CIRCLE

338. **Grünow** – MVFB I.f. 2393; see E. Petersen 1936: 37 no 25; A. Leube 1971: 204–207, Fig. 1b,d.

339. **Köthen-Kleipzig** – B. Schmidt 1976, Fig. 2: 5.

340. **Stenderup**
   - grave 3/31 – A. Genrich 1954: 71, Pl. 25C: 2.

Slavic lands

KIEV CULTURE

391. by **Kiev** – Otchet ... 1906: 145, Fig. 283.

Type II

Balt lands

DOLLKEIM/KOVROVO CULTURE

1. **Berezovka** (former **Groß Sausgarten**)
   - grave 14 (?) – K. Stadie 1919c: 445.

4. former **Grebieten**

   Northern part:
   - grave N.6 – G. Bujack 1888: 202.
   - grave N.95 – G. Bujack 1888: 214.
   - grave N.104 (2 specimens) – G. Bujack 1888: 215–216.
   - grave N.112 – G. Bujack 1888: 217.

   Southern part:
   - grave S.33 – J. Heydeck 1888: 239.
   - grave S.43 – J. Heydeck 1888: 240, Pl. VIII; N. Åberg 1919: 159.

5. former **Greibau**
   - grave 63 – O. Tischler & H. Kemke 1902: 29; N. Åberg 1919: 159.
   - grave 210 (2 specimens) – O. Tischler & H. Kemke 1902: 32, Pl. IV, 8; N. Åberg 1919: 159.

7. **Iskovo** (former **Ringels**)
   - grave 5 – F. E. Peiser 1909: 317; N. Åberg 1919: 160.
8. **Kovrovo** (former **Dollkeim**)
   - grave 161 (2 specimens) – O. Tischler & H. Kemke 1902: 24, Pl. IV, 3; N. Åberg 1919: 158.
   - grave 162 (2 specimens) – O. Tischler & H. Kemke 1902: 24, Pl. IV, 7; N. Åberg 1919: 158.
   - grave 164 – O. Tischler & H. Kemke 1902: 24, Pl. IV, 6; N. Åberg 1919: 158; C. Günther & A. Voss 1880.
   - loose find – N. Åberg 1919: 158.
10. **Letnoe** (former **Tenkieten**)
   - grave 65 – N. Åberg 1919: 160.
   - loose find – N. Åberg 1919: 160.
12. **Lyublino** (former **Serappen**)
   - grave 41 – N. Åberg 1919: 160.
14. **Mokhovoe** (former **Kaup-Wiskiauten**) – F. Jakobson's archive; see N. Åberg 1919: 159.
15. **Nalikajmy** (former **Liekeim**) – N. Åberg 1919: 161.
17. **Orekhovo** (former **Schuditten**) – A. Bezzenberger 1909a: 44; N. Åberg 1919: 160.
19. **Ozerovo** (former **Transsau**) – N. Åberg 1919: 160.
23. **Pionerskij-Zarechye "Gora Velikanov"** (former **Rantau "Hünnenberg"**) – N. Åberg 1919: 160.
29. **Putilovo** (former **Corjeiten**)
   - grave 27 – F. Jakobson's archive; see N. Åberg 1919: 158.
31. **Samland**, unknown site (2 specimens) – N. Åberg 1919: 160.
39. former **Warnikam**
   - grave 30 – O. Tischler & H. Kemke 1902: 43, Pl. IV, 4; N. Åberg 1919: 160.
   - grave 31 – O. Tischler & H. Kemke 1902: 43, Pl. IV, 5; N. Åberg 1919: 161.

BOGACZEWO CULTURE

43. **Gęsiki** (former **Meisterfelde**)
   - grave 59 – archive of Muzeum W. Kętrzyńskiego, Kętrzyn.
52. **Miętkie** (former **Mingfen**)
   - grave 273 – N. Åberg 1919: 161.
59. **Wyszembork** (former **Weißenburg**) – unpublished materials from cemetery excavated by W. Nowakowski and P. Szymański, Warsaw University.

WEST LITHUANIAN GROUP

61. **Aukštkiemiai** (former **Oberhof**)
   - grave 132 – N. Åberg 1919: 162, Fig. 19.
   - grave 399 – N. Åberg 1919: 162.
   - grave 400 – N. Åberg 1919: 162.
73. **Lazdininkai** (2 specimens) – VDKM inv. 1774: 78, 79; see E. Butenienė 1968: 151.
83. **Rudaičiai**, site I
   - grave 10 – VDKM inv. 1699: 41–49; see M. Michelbertas 1968: 99, Fig. 8: 2.
   - grave 18 – VDKM inv. 1699: 8086; see M. Michelbertas 1968: 101.
   - grave 20 – VDKM inv. 1699: 87–92; see M. Michelbertas 1968: 102, Fig. 8: 3.
   - loose find – VDKM inv. 1701: 12; see M. Michelbertas 1968: 89.
85. **Šernai** (former **Schernen**)
   - grave 102 – A. Bezzenberger 1892: 164, Fig. 16; N. Åberg 1919: 162.
   - loose find – N. Åberg 1919: 162.
87. **Užpelkiai**
   - hoard – VDKM inv. 662: 4; see J. Puzinas 1938: 261, Pl. XXXVIII, Fig. 64: 1.

LOWER NEMUNAS GROUP

98. **Rambynas** (former **Rombinus**) – N. Åberg 1919: 162.
102. **Vidgiriai**
   - grave 7 – R. Volkaitė-Kulikauskienė & K. Jankauskas 1992: 143–144, Fig. 10.

SUDOVIAN CULTURE, GOŁDAP AREA

104. **Boćwinka** (former **Alt-Bodschwingken**) – K. Stadie 1919b: 440; N. Åberg 1919: 161.
106. **Grodzisko** (former **Grodzysko**) – R. Grenz 1961: 65.
107. **Grunajki** (former **Gruneyken**)
   - grave V, urn II – O. Tischler 1879: 203–204, 254, no 37; N. Åberg 1919: 161.
   - loose finds (4 specimens) – R. Virchow 1871: 9–11; O. Tischler 1879: 202–203, nos 33–36, Pls. IX, 12 (= III, 12), XI, 5 (= V, 5); N. Åberg 1919: 161, Fig. 18.

111. **Sławosze** (former **Henriettenfeld**) – N. Åberg 1919: 161.

SUDOVIAN CULTURE, SUWAŁKI AREA

115. **Netta**, site I
- grave 106B – PMA/IV/364; see A. Bitner-Wróblewska 1991a: 82, Pl. III, 8.

CENTRAL LITHUANIAN GROUP

129. **Veršvai-Kaunas**
- grave 100 – VDKM inv. 1590: 535–541.

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

139. **Sauginiai**
- grave 24 – A. Merkevičius 1974: 62, Fig. 9: 1; 1984: 49–50, 55, 60, Fig. 11.

SEMIGALLIAN FLAT CEMETERIES GROUP

148. **Kokumuiža**
- deposit I – V. Urtans 1977: 138–142, Fig. 29, earlier literature ibid.

EAST LITHUANIAN BARROWS CULTURE

155. **Eikotištis** – VDKM inv. 661:9; see J. Puzinas 1938: 261, Pl. XXXVIII, Fig. 64: 2.

Germanic lands

ÖLAND

188. **Algutsrum** – A. Hackman 1905: 161 footnote 2; N. Åberg 1919: 42, Fig. 37.

196. **Gårdby parish** – N. Åberg 1919: 42.

208. **Lenstad** – SHM 5869; see N. Åberg 1919: 42; A. Bitner-Wróblewska 1996: 76, Fig. 3.

209. **Lundegård** – SHM 7677; see N. Åberg 1919: 42; A. Bitner-Wróblewska 1996: 76–77, Fig. 4.

212. **Övre Ålebäck** – KLM 2165; see N. Åberg 1919: 42; A. Bitner-Wróblewska 1996: 77, Fig. 6.

BORNHOLM

223. **Agerbygård/Bakkegård** – BRM 1523 x 9; see A. Bitner-Wróblewska 1994b: 89–90, Fig. 1.

WIELBARK CULTURE

330. **Pruszcz Gdański** (former **Praust**), site 5
- grave 1 – F. Glombowski 1926: 22–23; W. La Baume 1934: 154–155, Pl. 75; A. Abramowicz 1959: Pl. 16.

Finnish lands

TARAND CULTURE

371. **Pikkjärve** (former **Langensee**) – KAR 1896: 33, Pl. 5: 14.

378. **Reinas (Daigone)** – H. Moora 1938: 151, Pl. IX, 9.

387. **Virunuka** – S. Laul 1965: 329, Fig. 6: 4.

Type III

Balt lands

WEST LITHUANIAN GROUP

65. **Ģeistauti**
- grave 2 – Latvijas PSR ... 1974: 146, Pl. 40: 16–27.

79. **Ošenieki** – A. Vasks & I. Virse 1990: 172, Fig. 30: 4.

83. **Rudaičiai**, site I
- grave 5 – VDKM inv. 1699: 13–35; see L. Nakaitė 1964: Fig. 1: 1; M. Michelbertas 1968: 96–98: Fig. 4; 5: 1.

86. **Tūbaušiai**
- grave 53 – VDKM inv. 1578: 80; see R. Rimantienė 1968: 193, Fig. 12: 7–9.

LOWER NEMUNAS GROUP

91. former **Bendiglauken** (2 specimens) – N. Åberg 1919: 161.

96. **Pakalniškiai** – VDKM inv. 830: 1; see LAA 1978: 43.

99. **Rzhevskoe** (former **Linkuhnen**)
- grave 267 (2 specimens) – D. Waetzoldt 1939: 116, 119, Fig. 1.

SUDOVIAN CULTURE, GOŁDAP AREA

108. **Kamienna Struga** (former **Steinbach**) – F. Jakobson's archive.

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

140. **Stirbaičiai** – LAA 1978: 43.

SEMIGALLIAN FLAT CEMETERIES GROUP

152. **Pļavniekkalns** – F. Balodis & R. Šnore 1937: Pl. XXV, 2.

Germanic lands

GOTLAND

167. **Gotland**, unknown site – Statens ... 1908: 230–231, Fig. 75; N. Åberg 1919: 32, 42, Fig. 21.

Type IV

DOLLKEIM/KOVROVO CULTURE

2. **Cherniakhovsk** (former **Insterburg**)
   - grave 7 – W. Grunert 1937: 57, Fig. 86.
5. former **Greibau**
   - grave 216 – O. Tischler & H. Kemke 1902: 32, Pl. IV, 2; N. Åberg 1919: 159.
12. **Lyublino** (former **Serappen**)
   - grave 13 – O. Tischler & H. Kemke 1902: 36; N. Åberg 1919: 160.
16. **Okhotnoe** (former **Bieskobnicken**) – N. Åberg 1919: 158.
19. **Ozerovo** (former **Transsau**) – N. Åberg 1919: 160.
20. **Parkoszewo** (former **Perkau**)
   - grave 78 – F. Jakobson's archive; see N. Åberg 1919: 161.
21. **Pereslavskoe** (former **Drugehnen**) – N. Åberg 1919: 159.
26. **Povarovka** (former **Kirpehnen**) – N. Åberg 1919: 159.
36. **Tiulenino** (former **Viehof**) – F. Jakobson's archive.
39. former **Warnikam**
   - grave 15 – O. Tischler & H. Kemke 1902: 42, Pl. IV, 1; N. Åberg 1919: 160.

WEST LITHUANIAN GROUP

61. **Aukštkiemiai** (former **Oberhof**) – N. Åberg 1919: 162.
80. **Paparčiai** – according to pers. comm. V. Šimėnas, Vilnius.

Type V

Balt lands

DOLLKEIM/KOVROVO CULTURE

23. **Pionerskij-Zarechye "Gora Velikanov"** (former **Rantau "Hünnenberg"**) (iron specimen) – N. Åberg 1919: 160; W. Grunert 1944: 24, Fig. 10.
37. **Uzornoe** (former **Jäcknitz**)
   - grave b (iron specimen) – MWM inv. MMA 171, cat. 693–695/72; see A. Bezzenberger 1900: 127–128, Fig. 43.

Finnish lands

TARAND CULTURE

365. **Ojaveski** – A. Friedenthal 1935: 1–44, Fig. 13: 6
370. **Piilsi**
   - hoard – H. Moora 1933: 283–303, Figs. 5–6.

Type VI

Balt lands

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

137. **Maudžiorai** (2 specimens) – LAA 1978: 43; V. Valatka 1984: 19–20, Figs. 14: 8–9.

Finnish lands

TARAND CULTURE

347. **Jäbära** – M. Schmiedehelm 1955: 88–89, Fig. 20: 8.
349. **Karhiniemi** – H. Moora 1938: 152, footnote 1; E. Kivikoski 1947: 32, Fig. 203.
359. **Laakt (Lagedi)**
   - tarand XV – A. Spreckelsen 1927: 54, Pl. I, 14.
368. **Pada** – M. Schmiedehelm 1955: 124, Fig. 30: 4.

369. **Palomäki** – A. Hackman 1914: 151–152, Fig. 55a; M. Schauman-Lönnquist 1988: 8–63, Fig. 61.

377. **Reinapi** – H. Moora 1926: 18–200, Pl. 148: 6.

382. **Tyrma** – M. Schmiedehelm 1955: 148, Fig. 37: 6.

Type VII

Balt lands

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

137. **Maudžiorai** – LAA 1978: 43; V. Valatka 1984: 20, Fig. 14: 7.

SEMIGALLIAN FLAT CEMETERIES GROUP

152. **Pļavniekkalns**

- grave 26 – A. Bitner-Wróblewska 1991a: 83, Pl. V, 11; earlier literature ibid.

Finnish lands

TARAND CULTURE

345. **Hönsåkerskullen**

- grave – O. af Hällström 1945: 36–37, Fig. 10.

351. **Ketomäki** – A. Hackman 1911: 50–51; M. Schauman-Lönnquist 1988: 54–56, Fig. 58.

352. **Kirimäe**

- grave (3 specimens) – M. Schmiedehelm 1926: 5, 14–18, Figs. 1–2.

353. **Kirjakka**

- barrow – M. Mäkelä 1954: 28–29, Fig. 4.

355. **Kirstinmäki** – A. Hackman 1905: 82–84, 159, Pl. 4: 1; N. Åberg 1919: Fig. 36.

363. **Notsjö** (2 specimens) – A. Hackman 1905: 71–72, Pl. 3: 5; E. Kivikoski 1947: Fig. 204.

364. former **Nüggen** – A. Hackman 1905: 162, Fig. 123.

367. **Paali**

- hoard I – M. Schmiedehelm 1934: 213, 220–221, Fig. 2: 3.

376. **Ravatulla** – E. Kivikoski 1945: 141, Fig. 3: 1.

383. **Unipiha** (former **Unnipicht**) – KAR 1896: 33–34, Pl. 5: 11.

384. **Vanutehtaanmäki** (2 specimens) – A. Hackman 1918: 39–41; M. Schauman-Lönnquist 1988: 26–29, Fig. 24.

385. **Viasgränden** – A. Hackman 1905: 73–74, Pl. 3: 6.

Slavic lands

PSKOV "LONG BARROWS" CULTURE

392. **Pskov** – V. Urtans 1968: 79, Fig. 18: 3.

Type unknown

Balt lands

DOLLKEIM/KOVROVO CULTURE

1. **Berezovka** (former **Groß Sausgarten**)

- grave 14 – K. Stadie 1919c: 445.

3. former **Eisliethen** (3 specimens, 2 of them iron) – N. Åberg 1919: 159.

4. former **Grebieten**, Northern part

- grave N. 151 – G. Bujack 1888: 221.

5. former **Greibau**

- grave 219 – N. Åberg 1919: 159.

6. **Gurevsk** (former **Traussitten**) (iron specimen) – N. Åberg 1919: 160.

10. **Letnoe** (former **Tenkieten**)

- grave 5 (iron specimen) – F. Jakobson's archive.
- grave 28 – N. Åberg 1919: 160.

11. **Logvino** (former **Medenau**) (iron specimen) – W. Nowakowski 1996: 160.

20. **Parkoszewo** (former **Perkau**) (iron specimen) – N. Åberg 1919: 161.

39. former **Warnikam**

- grave 49 – O. Tischler & H. Kemke 1902: 44, Pl. V, 18.
- grave 84 – N. Åberg 1919: 161.

BOGACZEWO CULTURE

42. **Gąsior** (former **Gonschor-Jaskovska See**)

- grave 389 (iron specimen) – F. Jakobson's archive; see M. Schmiedehelm 1990: 83, Pl. X, 4.

WEST LITHUANIAN GROUP

77. **Nikėlai** – LAA 1978: 43.

84. **Stragnai** – LNM AR 38: 1358; see LAA 1978: 43.

LOWER NEMUNAS GROUP

91. former **Bendiglauken** – N. Åberg 1919: 161.

93. **Lumpėnai** (former **Lumpönen**) – A. Bezzenberger 1909c: 147; LAA 1978: 43.

96. **Pakalniškiai** – VDKM inv. 830: 2; see LAA 1978: 43.

97. former **Paskalwen** – N. Åberg 1919: 161.

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

143. **Žemajtija**, unknown site – L. Nakaitė 1964: 67 footnote; LAA 1978: 43.

Germanic lands

ÖLAND

211. **Öland**, unknown site – SHM 9925: 6; see N. Åberg 1923: 126, 127 footnote 1; A. Bitner-Wróblewska 1996: 77, Fig. 5.

Finnish lands

TARAND CULTURE

342. **Antiala** (2 specimens) – H. Moora 1938: 152 footnote 1; O. af Hällström 1945: 37 footnote 1.

344. **Hiidennokka** – O. af Hällström 1945: 37 footnote 1.

345. **Hönsåkerskullen**

- grave (2 specimens) – O. af Hällström 1945: 36–37, Fig. 11.

346. **Isokylä** (4 specimens) – H. Moora 1938: 152 footnote 1.

350. **Ketohaka** – O. af Hällström 1945: 37 footnote 1.

361. **Mäkihaka** – O. af Hällström 1945: 37 footnote 1.

369. **Palomäki** – O. af Hällström 1945: 37 footnote 1; M. Schauman-Lönnquist 1988: 64–65.

Slavic lands

PSKOV "LONG BARROWS" CULTURE

392. **Pskov** – A. Aleksandrov 1995: 160, Fig. 1: 1.

Appendix H
Cruciform brooches with star- and spade-like foot and their variants

Norway

ROGALAND

287. **Holmen**
- barrow – S. 8607h; see J. Reichstein 1975: 121, Pl. 40: 5, earlier literature ibid.

288. **Horr**
- grave (2 specimens) – B. 4834e–f; see AB 1891: 144–146.
- loose find – C. 17479; see AB 1893: 107–108.

290. **Hovland**
- grave (?) – S. 2276b; see J. Reichstein 1975: 121, earlier literature ibid.

291. **Kvassheim**
- grave 96 (2 specimens) – B. 5984; see J. Reichstein 1975: 212, Pl. 42: 2,4; earlier literature ibid; G. Lillehammer 1996: 181–182, Pl. 17b.

294. **Lima**
- grave (?) – S. 1738; see J. Reichstein 1975: 125, Pl. 35: 2, earlier literature ibid.

306. **Obrestad**
- grave (?) – B. 4254c; see H. Shetelig 1906: 89–90, Fig. 107; J. Reichstein 1975: 123, earlier literature ibid.
- loose find – B. 4344a; see H. Shetelig 1906: 89–90, Fig. 106; J. Reichstein 1975: 123, earlier literature ibid.

307. **Ogna** – S. 10013.

312. **Rege**
- barrow 7 – S. 1301; see J. Reichstein 1975: 123, Pl. 24: 1, earlier literature ibid.

318. **Stople**
- barrow, grave 2 – S. 6815c; see J. Reichstein 1975: 125, earlier literature ibid.

320. **Tegle**
- barrow – S. 3856f; see J. Reichstein 1975: 124, Pl. 41: 7, earlier literature ibid.

322. **Varhaug**
- grave (3 specimens) – S. 6450a–b; see J. Reichstein 1975: 123, Pl. 41: 9–11, earlier literature ibid.

325. **Vestly** (3 specimens) – B. 2531–32, 2541; see H. Shetelig 1906: 88, Fig. 105; J. Reichstein 1975: 124.

326. **Værsland**
- barrow – S. 1433a; see J. Reichstein 1975: 121, Pl. 25: 1, earlier literature ibid.

VEST AGDER

269. **Ådland**
- barrow – C. 8718; see J. Reichstein 1975: 118, Pl. 32: 3, earlier literature ibid.

270. **Ågedal**
- grave – B. 3663; see H. Shetelig's archive.

280. **Gar**
- grave – C. 33591; see UOÅ 1974: 26.

284. **Hægebostad**
- mixed graves – C. 23203o; see UOÅ 1943/44: 111, Fig. 1.

297. **Lunde**
- grave (2 specimens) – B. 4234b, e; see J. Reichstein 1975: 119–20, Pl. 52: 9, 11.

298. **Lunde "Spanskslottet"**
- barrow – B. 4286c; see J. Reichstein 1975: 120, Pl. 64: 2, earlier literature ibid.

309. **Øvre Stoveland**
- barrow – C. 8867; see J. Reichstein 1975: 118, Pl. 22: 5.

324. **Vere** – C. 22296a; see UOÅ 1918: 131–132, no 91.

ØSTFOLD

299. **Lundvoll**
- barrow – C. 21753; see UOÅ 1917: 260–261, no 260.

316. **Søndre Gammelsrød**
- barrow – C. 6818; see J. Reichstein 1975: 114, Pl. 21: 4, earlier literature ibid.

VESTFOLD

296. **Lund**
- barrow 9 – C. 6075; see H. Shetelig 1906: 49, Fig. 62; J. Reichstein 1975: 116.

OPPLAND

311. **Råstad** – C. 27279; see J. Reichstein 1975: 116, Pl. 138: 5, earlier literature ibid.

HORDALAND

276. **Døso**

- barrow 2, grave II – B. 6090 IIa; see J. Reichstein 1975: 126, Pl. 48: 7, earlier literature ibid.

308. **Øvre Mjelde**

- barrow – B. 8579 IIf; see J. Reichstein 1975: 126, Pl. 48: 1, earlier literature ibid.

SOGN OG FJORDANE

273. **Bø**

- barrow – B. 4842a; see J. Reichstein 1975: 128, Pl. 143: 6, earlier literature ibid.

289. **Hove**

- barrow – B. 560; see J. Reichstein 1975: 128, Pl. 143: 8, earlier literature ibid.

315. **Skrøppa**

- barrow – B. 6588a; see J. Reichstein 1975: 127, earlier literature ibid.

NORD TRØNDELAG

323. **Varøy** – Th. Petersen 1931: 20, no 87a, Fig. 2.

NORDLAND

278. **Finnøy** – Ts. 2675; see T. Sjøvold 1962: 60, no E 99.

314. **Røssøy**

- barrow 1 – Ts. 1194; see T. Sjøvold 1962: 54, no E 86.

317. **Steine**

- barrow 10 – Ts. 1549; see T. Sjøvold 1962: 86, no E 161, Pl. 38 d.

Sweden

203. **Isgärde** – N. Åberg 1919: 42, Fig. 38.

261. **Scania** – J. Reichstein 1975: 135, Pl. 107: 7, earlier literature ibid.

262. **Tisjön**, mixed graves – J. Reichstein 1975: 133, Pl. 71: 4.

Denmark

266. **Gudme** – H. Thrane 1993: Pl. 12.

268. by **Viborg**, unknown site – NM C 5770.

Undetermined type with spade-like foot

There are fragments of spade-footed brooches, probably cruciform ones.

ROGALAND

279. **Fotland**

- barrow, grave B – S. 3666; see SMÅ 1913: 25–26, no 93.

VEST AGDER

285. **Hårigstad**

- barrow (2 specimens) – C. 7437–38; see J. Reichstein 1975: 119, Pl. 21: 1, 3, earlier literature ibid.

VESTFOLD

292. **Lasken**

- barrow – C. 11623; see H. Shetelig 1906: 50, Fig. 64; J. Reichstein 1975: 115.

HORDALAND

282. **Grindheim**

- barrow, grave II – B. 10202 II r; see BMÅ 1950: 27–30.

Appendix I
Square-headed brooches with spade-like foot. Type Horr/Kvassheim

Norway

ROGALAND

288. **Horr**
- grave – B. 4834i; see AB 1891: 144–146, no 95.
- loose find – C. 17480; see AB 1893: 108, no 143 h.

291. **Kvassheim**
- grave 34A – B. 5362; see H. Shetelig's archive; G. Lillehammer 1996: 155–156.
- grave 126 (2 specimens) – B. 5994b; see G. Lillehammer 1996: 194–195.

300. **Marvik**
- barrow, mixed graves – S. 2272b; see SMÅ 1900: 78–79, no 27, Fig. 10.

302. **Nærbø**
- grave – B. 4343h; see AB 1885: 82–83, no 45.
- loose find – S. 1978; see SMÅ 1897: 61, Fig. 2.

304. **Nord-Braut**
- barrow – S. 2451b; see SMÅ 1902: 98–99, no 35, Fig. 5.

313. **Rivaland i Årdal**
- barrow – S. 2547b; see SMÅ 1903: 82–84, Fig. 3; E. Bakka 1973: Figs. 53–54.

325. **Vestly** (3 specimens) – B. 2533–35; see H. Shetelig 1911: 66, Fig. 31.

VEST AGDER

297. **Lunde**
- grave – B. 4234 c; see J. Reichstein 1975: 120, Pl. 52: 10, earlier literature ibid.

301. **Moi Øvre**
- grave – C. 28758c; see UOÅ 1954–55: 96–98.

319. **Stoveland**
- barrow 7 – C. 8917; see AB 1878: 261, no 153.

ØSTFOLD

321. **Torper**
- barrow – C. 10919; see AB 1882: 153, no 50.

VESTFOLD

272. **Aske**
- barrow – C. 19187; see AB 1898: 83, no 86.

BUSKERUD

275. **Bråten**
- barrow 9 – C. 5163; see H. Shetelig 1911: 66, Fig. 29.

TELEMARK

283. **Gullhaugen**
- destroyed grave – C. 36665a; see UOÅ 1990: 196–197, Fig. 16.

HORDALAND

274. **Bolstad**
- barrow, grave II – B. 9614 II f; see BMÅ 1945: 8–11, Fig. 6; B. Magnus, O. Møllerop & T. Sjøvold 1966: N 1.

276. **Døso**
- barrow 2, grave II (2 specimens) – B. 6090 IIb; see J. Reichstein 1975: 126, Pl. 48: 6, 8, earlier literature ibid.

277. **Eikeland**
- barrow – B. 5468; see AB 1889: 67, no 2.

281. **Gjukastein**
- barrow, mixed graves – B. 661; see J. Reichstein 1975: 126, Pl. 53: 3, earlier literature ibid.

295. **Løn**
- grave – B. 6727c; see BMÅ 1933: 43–45.

305. **Nordre Birkjeland**
- barrow (2 specimens) – B. 6658c; see J. Reichstein 1975: 126, Pl. 51: 2, earlier literature ibid.

327. **Ytre Arna**
- grave – B. 8649a; see BMÅ 1935: 10–12, no 21.

SOGN OG FJORDANE

286. **Henjum**
- barrow (?) – B. 434; see H. Shetelig 1911: 66, Fig. 32.

289. **Hove**

- barrow, grave I – B. 6691 Ib; see BMÅ 1913: 16–20, no 24.

303. **Nedre Stedje**

- barrow, grave II – B. 6375 IIa; see BMÅ 1910: 35–37, no 11.

MØRE OG ROMSDAL

293. **Likjell** – B. 5673; see H. Shetelig's archive.

NORD TRØNDELAG

323. **Varøy** – Th. Petersen 1931: 20, no 87, Fig. 2.

NORDLAND

310. **Ramberg Sandholmen**

- barrow 2 (4 specimens) – Ts. 2134–37; see T. Sjøvold 1962: 85, no E 85.

Sweden

259. **Bohuslän** – H. Shetelig's archive.

Denmark

265. **Denmark**, unknown site – NM C without number.

267. **Sebbersund** – NM C 31392; see P. Birkedahl Christensen & E. Johansen 1992: 208.

Appendix J
Crossbow brooches with animal head. Type Sensburg/Mrągowo and its variants

Type Sensburg/Mrągowo

Balt lands

BOGACZEWO CULTURE

53. **Mrągowo** (former **Sensburg**) – N. Åberg 1919: 94, Fig. 127.

SEMIGALLIAN FLAT CEMETERIES GROUP

144. **Budraičiai** – A. Tautavičius 1996: 205, Fig. 93.

Germanic lands

ÖLAND

202. **Hönstorp** – KLM 1458; see N. Åberg 1923: 131, Fig. 234.

211. **Öland**, unknown site – SHM 1304; see N. Åberg 1923: 131, Fig. 235.

216. **Skogsby** – KLM 4950; see N. Åberg 1923: 131.

BORNHOLM

236. **Levka**

- grave 2 (2 specimens) – BMR 1119; see J. Seit Jespersen 1986: Fig. 4 g, h.

Slavic lands

KIEV CULTURE

389. **Choulgovka** – M. Kazanski 2000: Fig. 6: 6.

Type Sensburg/Mrągowo, Smørenge variant

BORNHOLM

228. **Bornholm**, unknown site – O. Klindt-Jensen 1957: 118, Fig. 89: 1.

242. **Møllegård** – BMR 1235 x 161.

252. **Smørenge** (2 specimens) – BMR 766 x 371; 766 x 233.

Type Sensburg/Mrągowo, Rubokai variant

WEST LITHUANIAN GROUP

81. **Rubokai** (former **Rubocken**)

- grave 41 – A. Bezzenberger 1909d: 169–170, Fig. 145.

LOWER NEMUNAS GROUP

102. **Vidgiriai**

- grave 11 – unpublished materials from cemetery excavated by V. Šimenas, Vilnius University; see V. I. Kulakov 1990: 209.

CENTRAL LITHUANIAN GROUP

128. **Plinkaigalis**

- grave 107 – V. Kazakevičius 1983: 191, Fig. 5: 1; 1993: 107, Figs. 167: 6, 174.

Type Sensburg/Mrągowo, imitations

WEST LITHUANIAN GROUP

69. **Jurgaičiai**

- grave 5 – LNM AR 406: 49.

79. **Ošenieki** (3 specimens) – A. Vasks & I. Virse 1990: 172, Fig. 30: 2, 3, 5.

Type Sensburg/Mrągowo, Letto-Lithuanian variant

Balt lands

WEST LITHUANIAN GROUP

69. **Jurgaičiai**

- grave 22 – LNM AR 406: 190; see L. Vaitkunskienė 1986: Fig. 1: 4.

70. **Kalniņi Bunkas** – E. C. G. Oxenstierna 1940: Fig. 35.

73. **Lazdininkai**

- grave 27 – A. Tautavičius 1996: 207–208, Fig. 96: 1.

- grave 36 – A. Tautavičius 1996: 207–208, Fig. 96: 2.
- grave 116 – K. Rickevičiutė 1984: 46, Fig. 1.

SAMOGITIAN (ŽEMAJTIJA) FLAT CEMETERIES GROUP

138. **Pagrybis**
- loose find – V. Kazakevičius 1983: 191, Fig. 5: 2; L. Vaitkunskienė 1995: 119, Fig. 168.

SEMIGALLIAN FLAT CEMETERIES GROUP

147. **Jauneikiai**
- grave 390 – LNM AR 537: 808; see I. Vaškevičiutė 1987: Fig. 1.

151. **Oši** – E. C. G. Oxenstierna 1940: Fig. 32.

EAST LATVIAN FLAT CEMETERIES GROUP

159. **Jēkabpils** – E. C. G. Oxenstierna 1940: Fig. 33.

160. **Krustpils Mantas** – Latvijas PSR ... 1974: 158, Pl. 42: 2.

Finnish lands

TARAND CULTURE

371. **Pikkjärve** (former **Langensee**) – KAR 1896: Pl. VI: 2.

Appendix K
Crossbow brooches with animal head. Type Daumen/Tumiany

Balt lands

DOLLKEIM/KOVROVO CULTURE

18. **Osokino** (former **Groß Waldeck**) – N. Åberg 1919: 94–95, Fig. 129; E. C. G. Oxenstierna 1940: 238, Fig. 38.
28. **Prudovka** (former **Popelken**)
    - grave VI – E. C. G. Oxenstierna 1940: 240, Fig. 45.
40. **Yaroslavskoe** (former **Schlakalken**)
    - grave 25 – N. Åberg 1919: 95–96, Fig. 130.

OLSZTYN GROUP

57. **Tumiany** (former **Daumen**)
    - grave 38 – J. Heydeck 1895: 49, Pl. IX, 2; F. Jakobson's archive.
    - grave 150 – J. Heydeck 1895: 65–67, Pl. VI, 9; F. Jakobson's archive.
    - loose finds (2 specimens) – E. C. G. Oxenstierna 1940: 230, 238, Figs. 18, 19, 40.
59. **Wyszembork** (former **Weißenburg**) – unpublished materials from cemetery excavated by W. Nowakowski and P. Szymański, Warsaw University.

WEST LITHUANIAN GROUP

65. **Ģeistauti**
    - grave 2 – Latvijas PSR... 1974: 146, Pl. 40: 16.
66. **Griezes** – LVM A. 10097:1.
67. **Grobina** – KAR 1896: Pl. VI: 7; E.C.G.Oxenstierna 1940, earlier literature ibid.
73. **Lazdininkai**
    - grave 116 – K. Rickevičiutė 1984: 46, Fig. 1.
82. **Rucava** – E. Šturms 1950: 22 endnote 14.

LOWER NEMUNAS GROUP

101. by **Sovetsk** (former **Tilsit**), **"Rombinusberg"** – E. C. G. Oxenstierna 1940: 239, Fig. 41.
102. **Vidgiriai**
    - grave 2 – V. Šimėnas 1988: 95–96, Fig. 10; 1996: 56–58, Fig. 20.
    - grave 32 – unpublished materials from cemetery excavated by V. Šimėnas, Vilnius University.

SUDOVIAN CULTURE, GOŁDAP AREA

112. by **Węgorzewo** (former **Angerburg**) – Pisanski collection, MVFB II. 559; see L. von Ledebur 1838: Pl. I; E. C. G. Oxenstierna 1940: 240, Fig. 43; W. Nowakowski 1998: 40, 127, Pl. 31: 629.

CENTRAL LITHUANIAN GROUP

128. **Plinkaigalis**
    - grave 106 – V. Kazakevičius 1983: 189–190, Fig. 1; 1993: 107, Fig. 172.

SEMIGALLIAN FLAT CEMETERIES GROUP

150. **Miklas Kalns** – J. Graudonis 1978: Fig. 10.

Germanic lands

ÖLAND

197. **Gråborg** – KLM 20732; see N. Åberg 1953: 93, Fig. 107.

BAVARIANS (BAJUVARII)

341. **Altenerding**
    - grave 421 – J. Werner 1970: 78–81, Pl. 9; W. Sage 1975: Figs. 19, 22, 27.

Finnish lands

TARAND CULTURE

366. **Ošbirzes** – LVM A. 7579: 74; see V. Kazakevičius 1983: 194.

Type Daumen/Tumiany, imitation

Balt lands

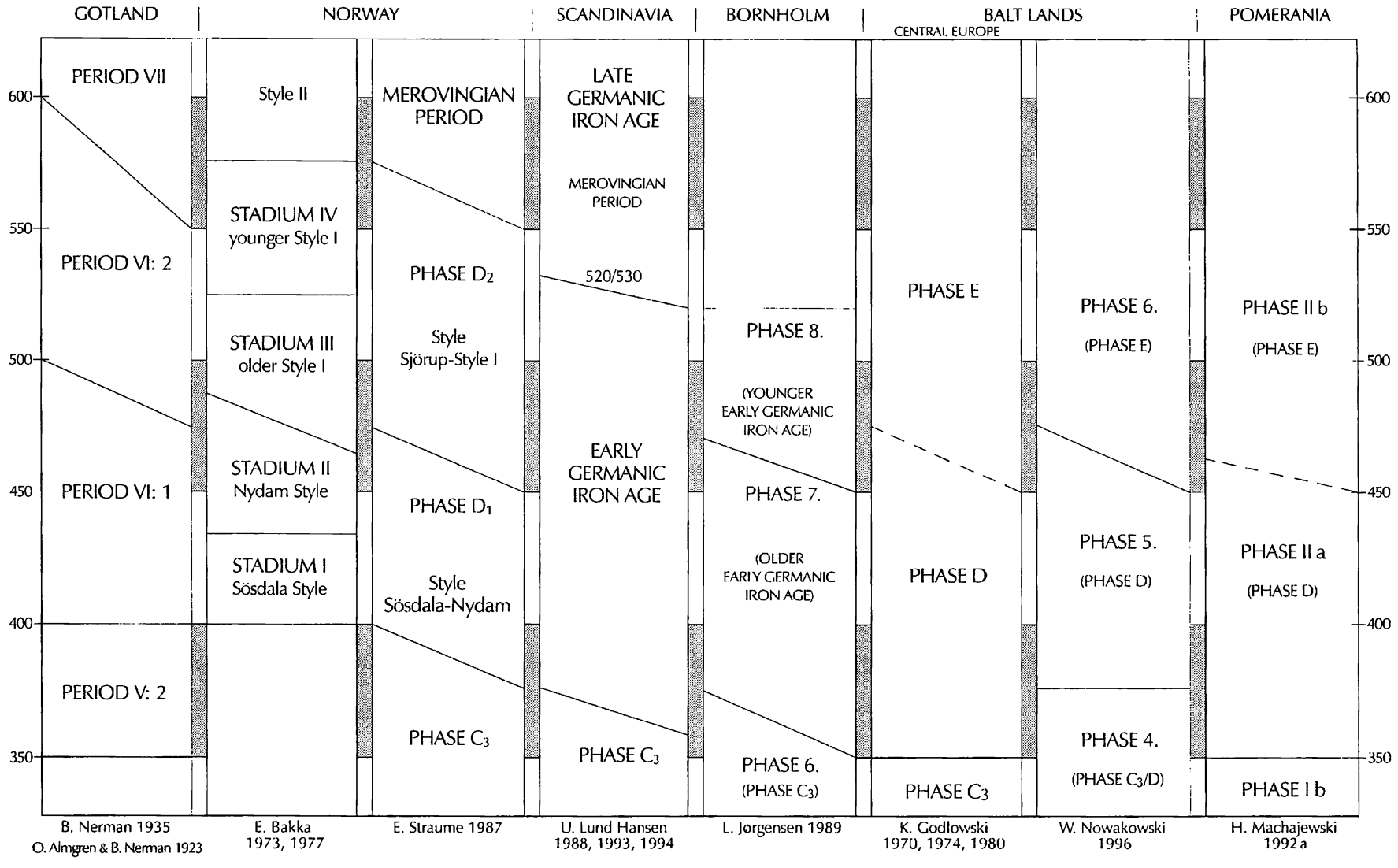
SEMIGALLIAN FLAT CEMETERIES GROUP

147. **Jauneikiai**
    - grave 466 – LNM AR 537: 1026; see I. Vaškevičiūtė 1987: Fig. 2.

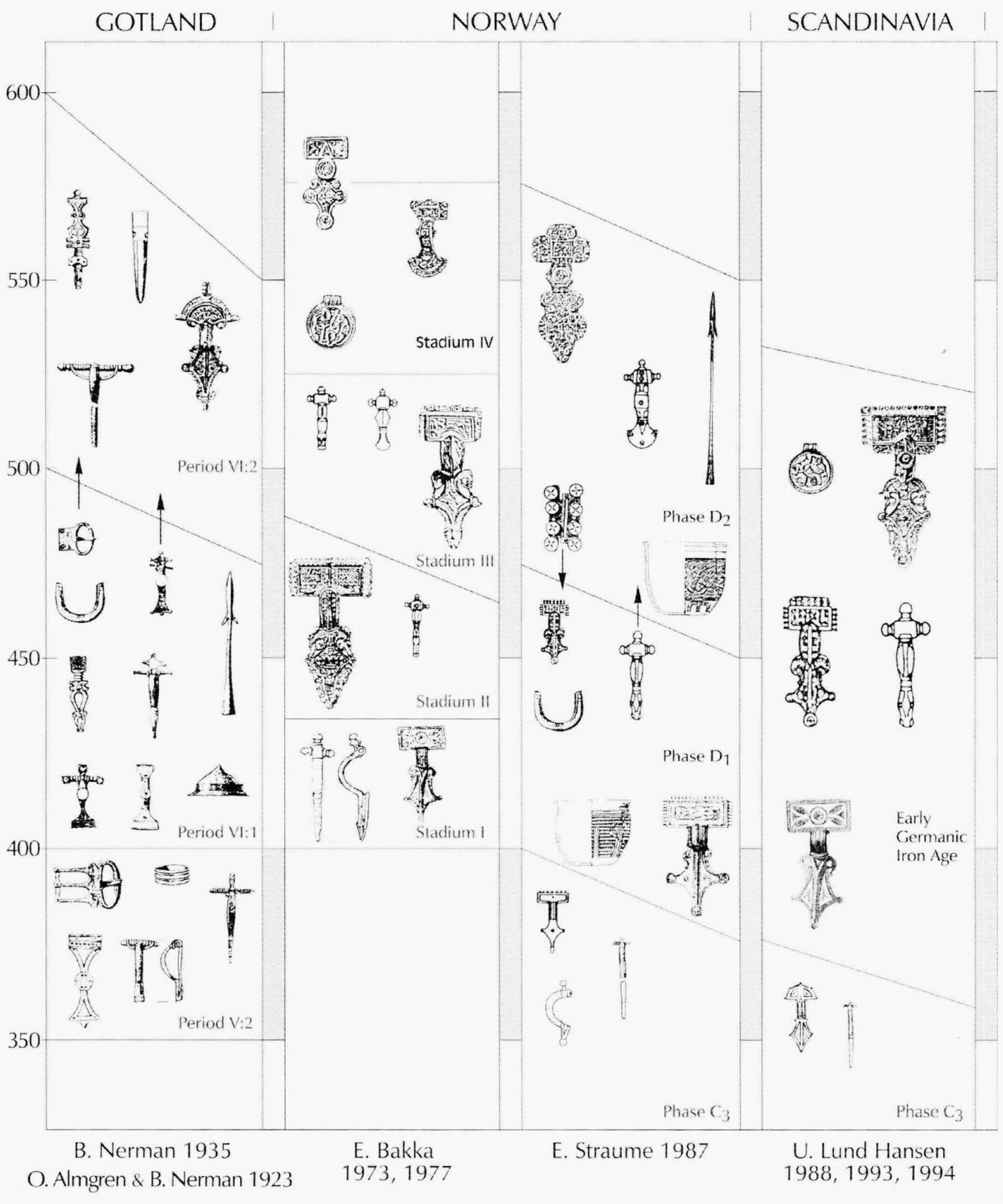
Appendix L
Balt sites from former East Prussia

Alt-Bodschwingken (Boćwinka) [104]
Althof-Insterburg (Telmanovo) [35]
Angerburg (Węgorzewo) [112]
Bartlikshof (Bartlikowo) [41]
Barwen (Barvai) [62]
Bendiglauken [91]
Bieskobnicken (Okhotnoe) [16]
Corjeiten (Putilovo) [29]
Daumen (Tumiany) [57]
Degeln bei Prökul (Degliai) [63]
Detlevsruh (Pesochnoe) [22]
Dollkeim (Kovrovo) [8]
Drugehnen (Pereslavskoe) [21]
Eisliethen [3]
Eisselbitten (Sirenevo) [32]
Galgenberg-Lötzen (Giżycko-Góra Szubienicza)[44]
Gonschor-Jaskowska See (Gąsior) [42]
Grebieten [4]
Greibau [5]
Greyszönen (Greižėnai) [92]
Grodzysko (Grodzisko) [106]
Groß Eschenort (Jasieniec) [47]
Groß Pillkallen (Mezhdurechye) [94]
Groß Sausgarten (Berezovka) [1]
Groß Waldeck (Osokino) [18]
Grunden (Grądy Kruklaneckie) [45]
Gruneyken (Grunajki) [107]
Henriettenfeld (Sławosze) [111]
Huntenberg (Podgórze) [25]
Insterburg (Cherniakhovsk) [2]
Jäcknitz (Uzornoe) [37]
Jakunowken (Jakunówko) [46]
Kaup-Wiskiauten (Mokhovoe) [14]
Kirpehnen (Povarovka) [26]
Kirtigehnen (Svetlogorsk) [34]
Kossewen (Kosewo) [48]
Kruglanken (Kruklanki) [49]
Labenszowen (Łabędziewo) [51]
Leisten (Laistai) [72]
Liekeim (Nalikajmy) [15]
Linkuhnen (Rzhevskoe) [99]
Löbertshof [13]
Lumpönen (Lumpėnai) [93]
Medenau (Logvino) [11]
Meisterfelde (Gęsiki) [43]
Metterkweten (Metirkviečiai) [76]
Mingfen (Miętkie) [52]
Neu-Bodschwingken (Nowa Boćwinka) [109]
Nikutowen (Nikutowo) [54]
Oberhof (Aukštkiemiai) [61]
Onufrigowen (Onufryjewo) [55]
Orlowen (Orłowo) [56]
Paskalwen [97]
Perkau (Parkoszewo) [20]
Pietraschen (Pietrasze) [110]
Plauen [24]
Pollwitten (Rovnoe) [30]
Popelken (Prudovka) [28]
Praddau (Solechnoe) [33]
Ragnit Schloßberg (Neman) [95]
Rantau "Hünnenberg" (Pionerskij-Zarechye "Gora Velikanov") [23]
Ringels (Iskovo) [7]
Rombinus (Rambynas) [98]
Rothebude (Czerwony Dwór) [105]
Rubocken (Rubokai) [81]
Schernen (Šernai) [85]
Schlakalken (Yaroslavskoe) [40]
Schuditten (Orekhovo) [17]
Sdorren (Zdory) [60]
Seefeld (Prostornoe) [27]
Sensburg (Mrągowo) [53]
Serappen (Lyublino) [12]
Steinbach (Kamienna Struga) [108]
Sternwalde (Lasowiec) [50]
Stolzentietz (Dvyliai) [64]
Tenkieten (Letnoe) [10]
Tilsit (Sovetsk) [100]
Transsau (Ozerovo) [19]
Traussitten (Gurevsk) [6]
Viehof (Tiulenino) [36]
Warengen [38]
Warnikam [39]
Weißenburg (Wyszembork) [59]
Weszeiten [90]
Wilkieten (Vilkyčiai) [89]
Wilkischken (Vilkyškiai) [103]
Wogau (Lermontovo) [9]
Worplack (Worpławki) [58]

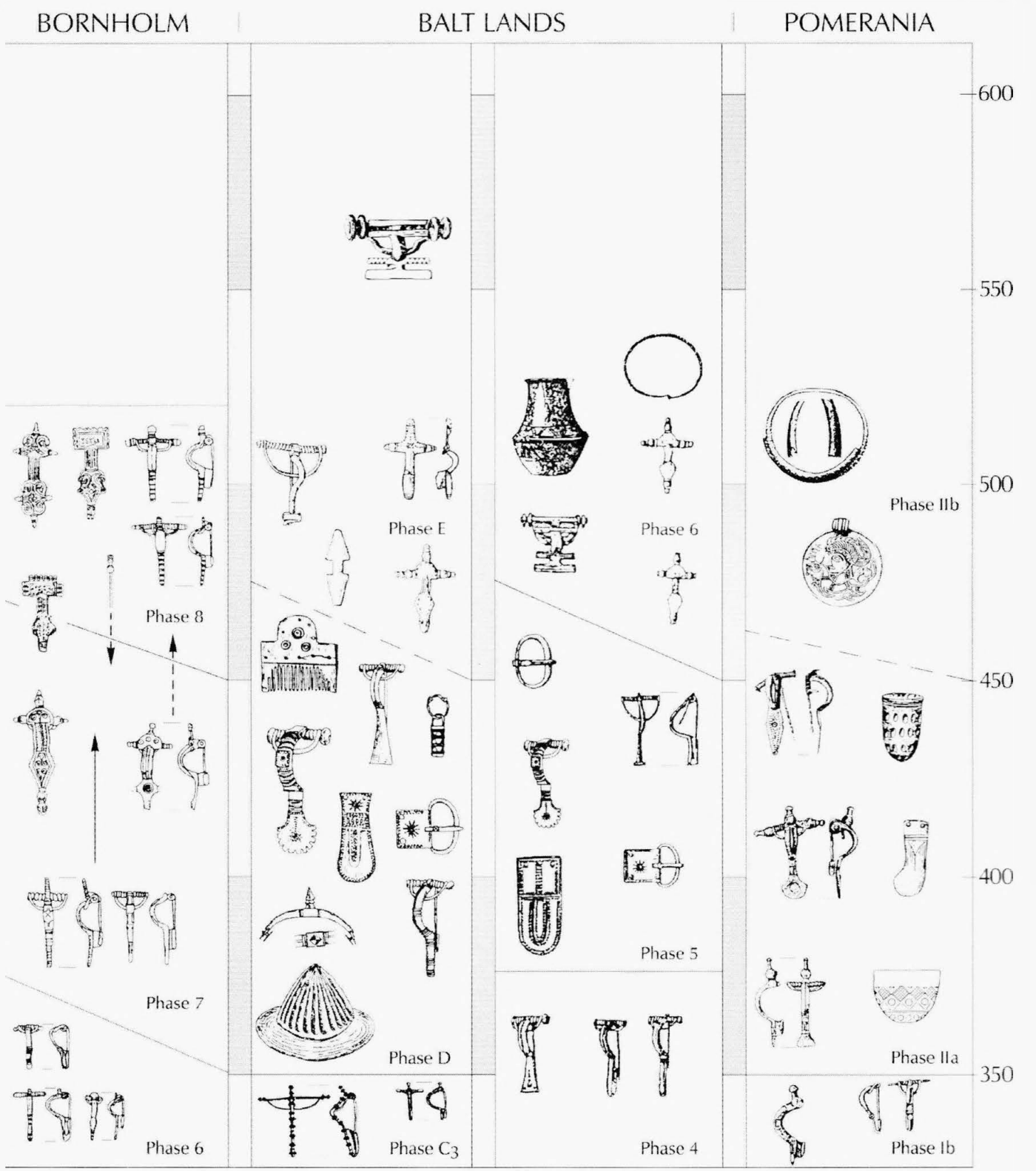
Plates

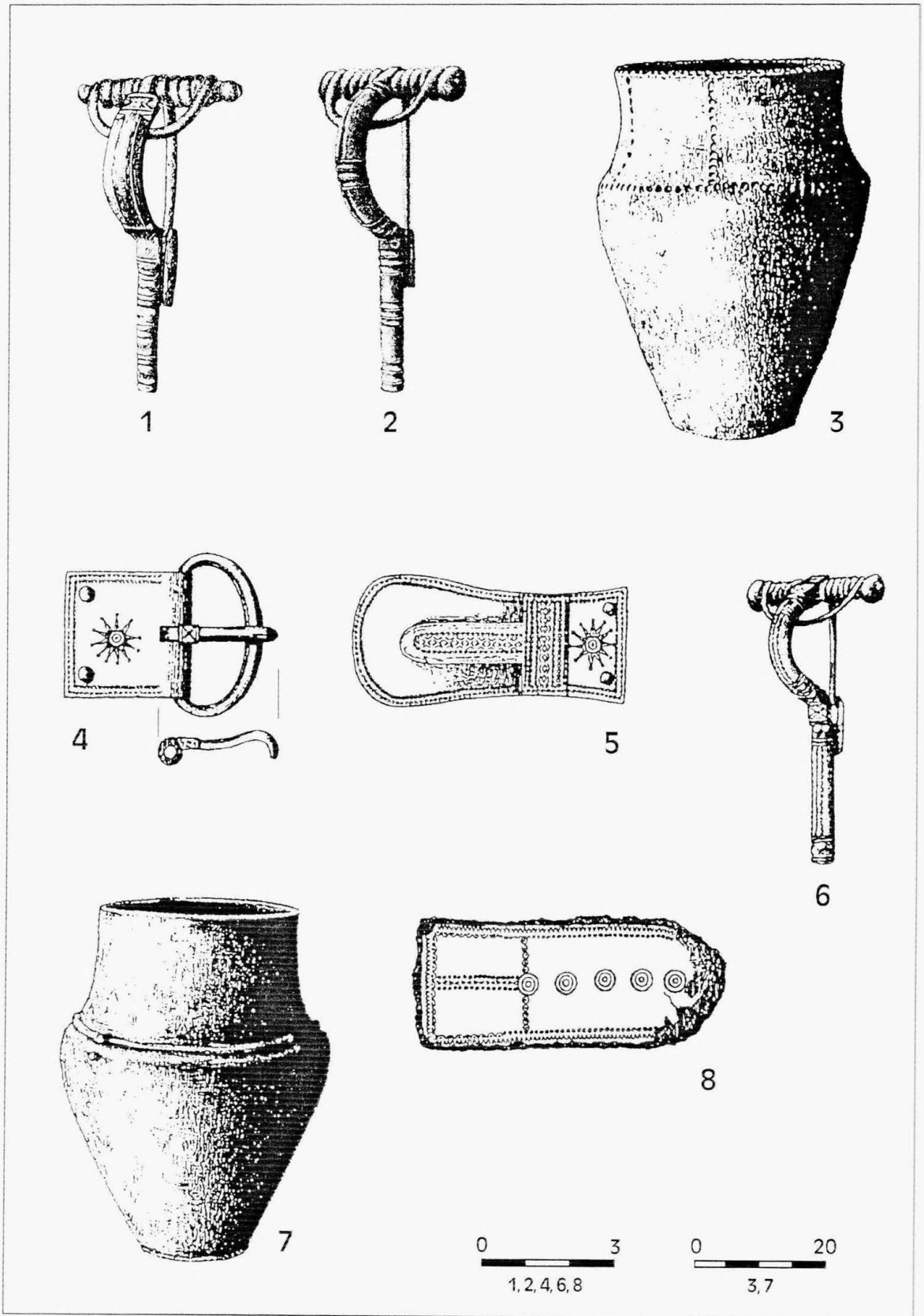


Pl. I. A correlation table of different chronological systems.

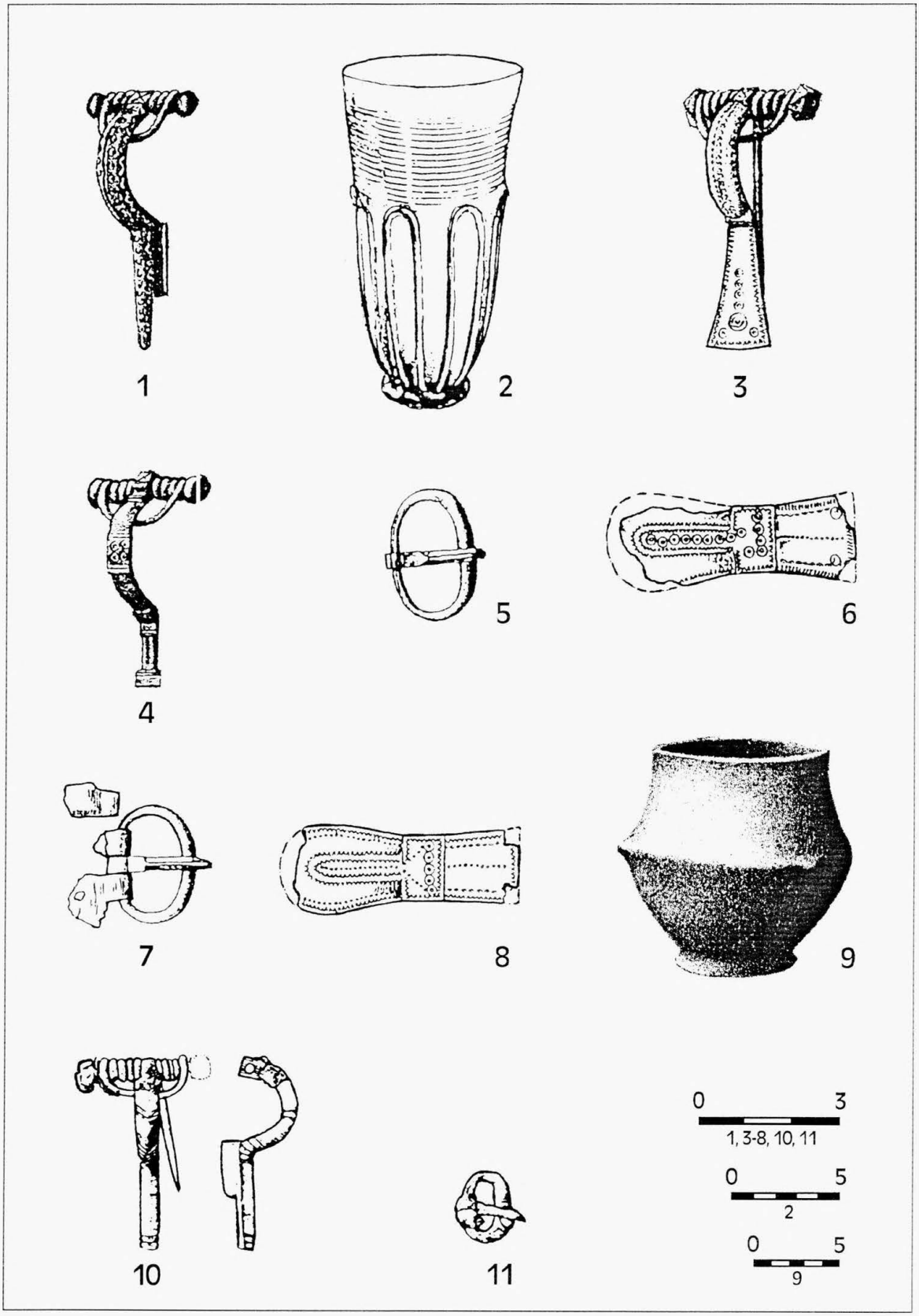


Pl. II. A correlation diagram of main chronological indicators.

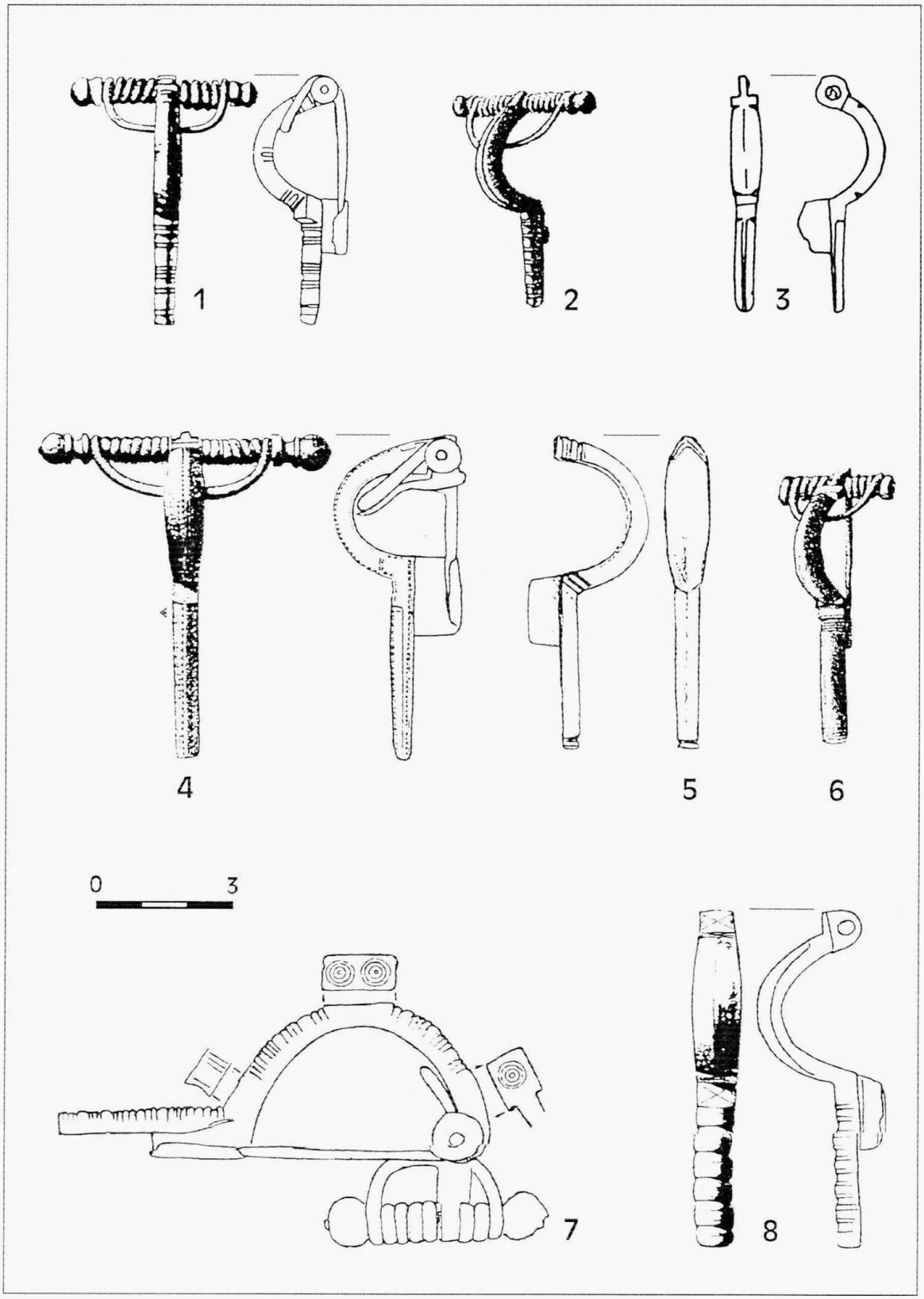

BORNHOLM
BALT LANDS
POMERANIA
600
550
500
450
400
350
Phase 8
Phase 7
Phase 6
Phase E
Phase D
Phase C3
Phase 6
Phase 5
Phase 4
Phase IIb
Phase IIa
Phase Ib
L. Jørgensen 1989
K. Godłowski 1970, 1974, 1980
W. Nowakowski 1996
H. Machajewski 1992a



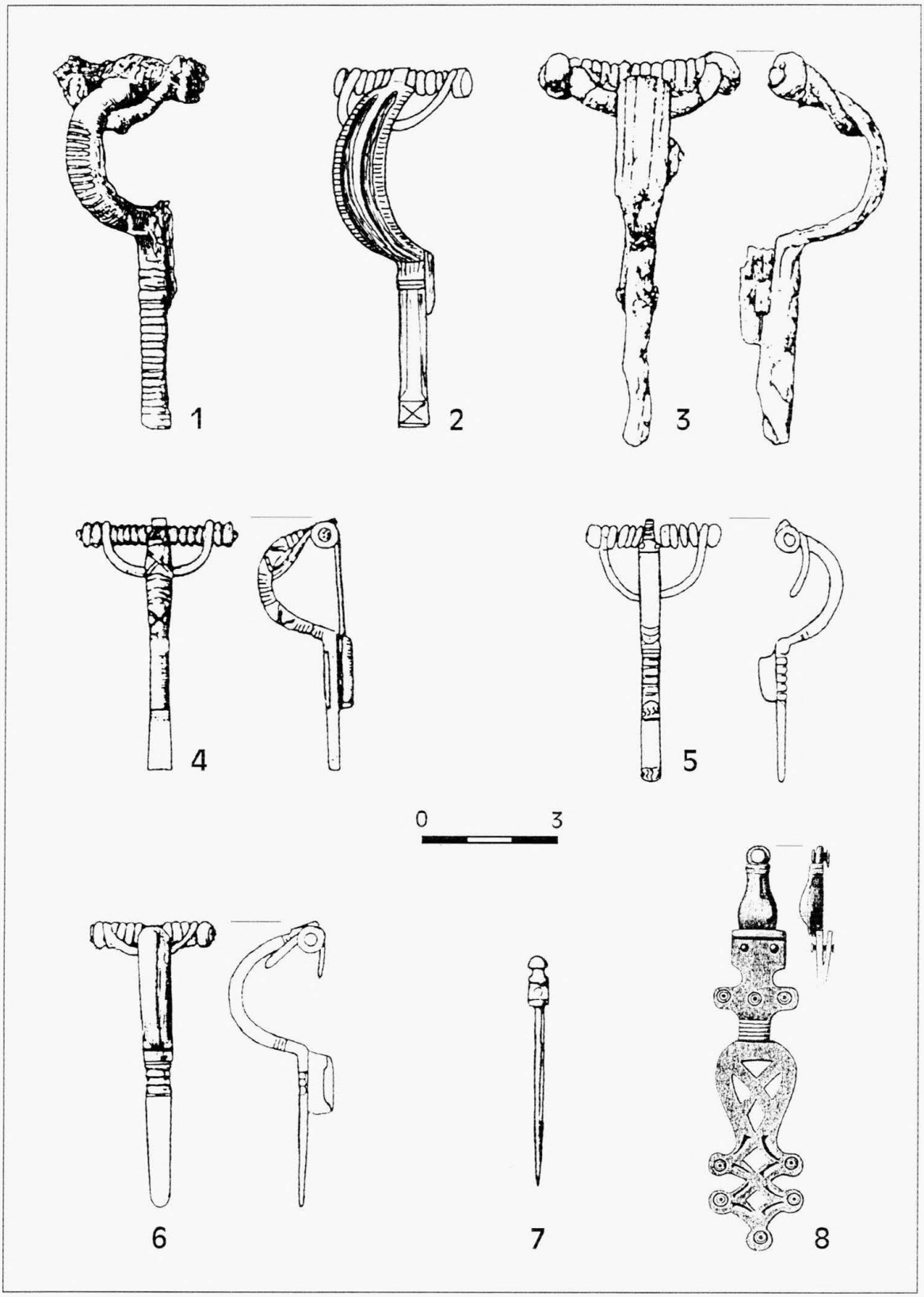
Pl. III. 1 – Skowarcz; 2–5 – Kovrovo, grave 163; 6–8 – Kovrovo, grave 146 (acc. to Gothiskandza 1939; O. Tischler & H. Kemke 1902).



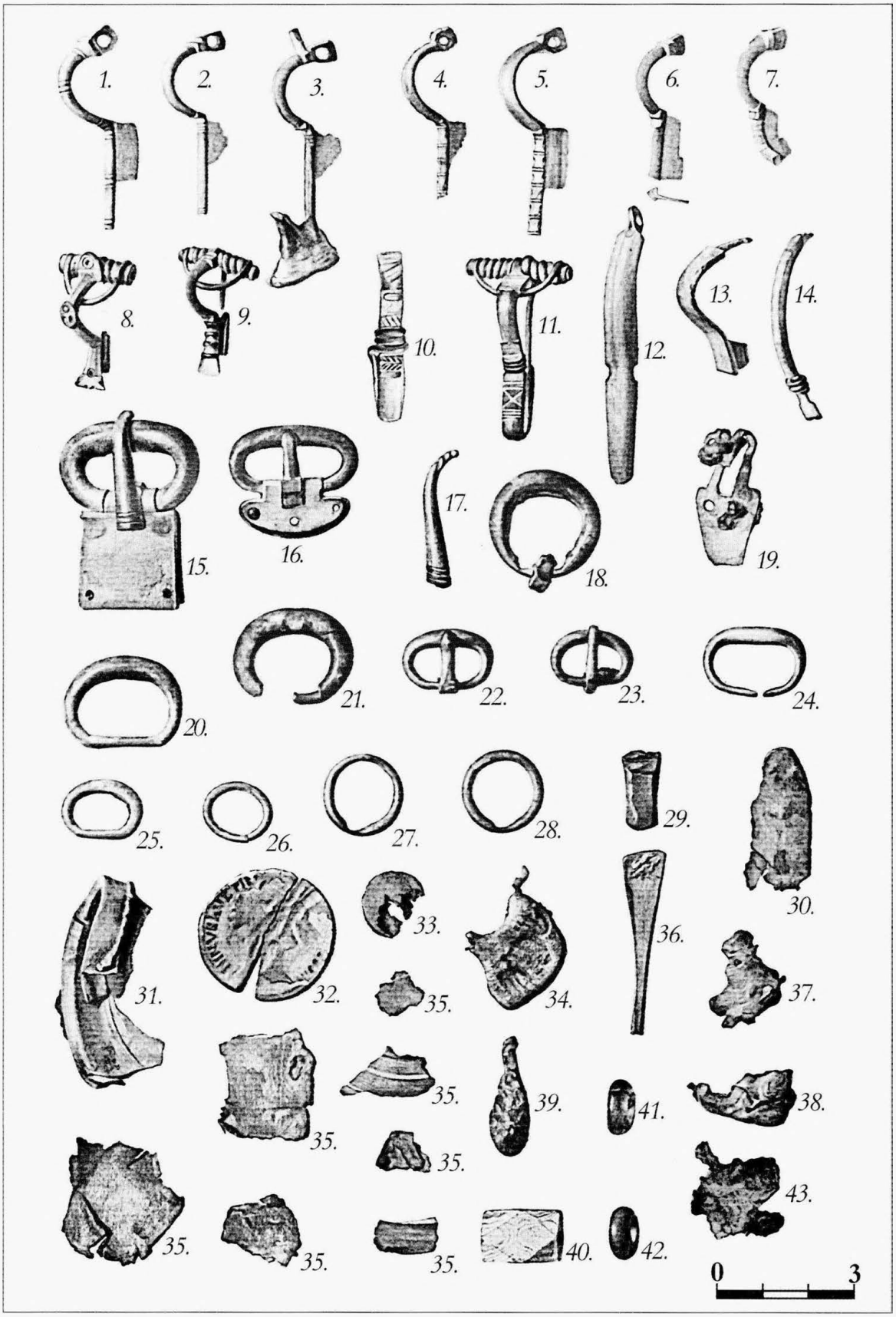
Pl. IV. 1–2 – Warnikam, grave 65; 3–9 – Warnikam, grave 60; 10–11 – Korkliny, barrow 3, grave 5 (acc. to O. Tischler & H. Kemke 1902; J. Jaskanis 1968).



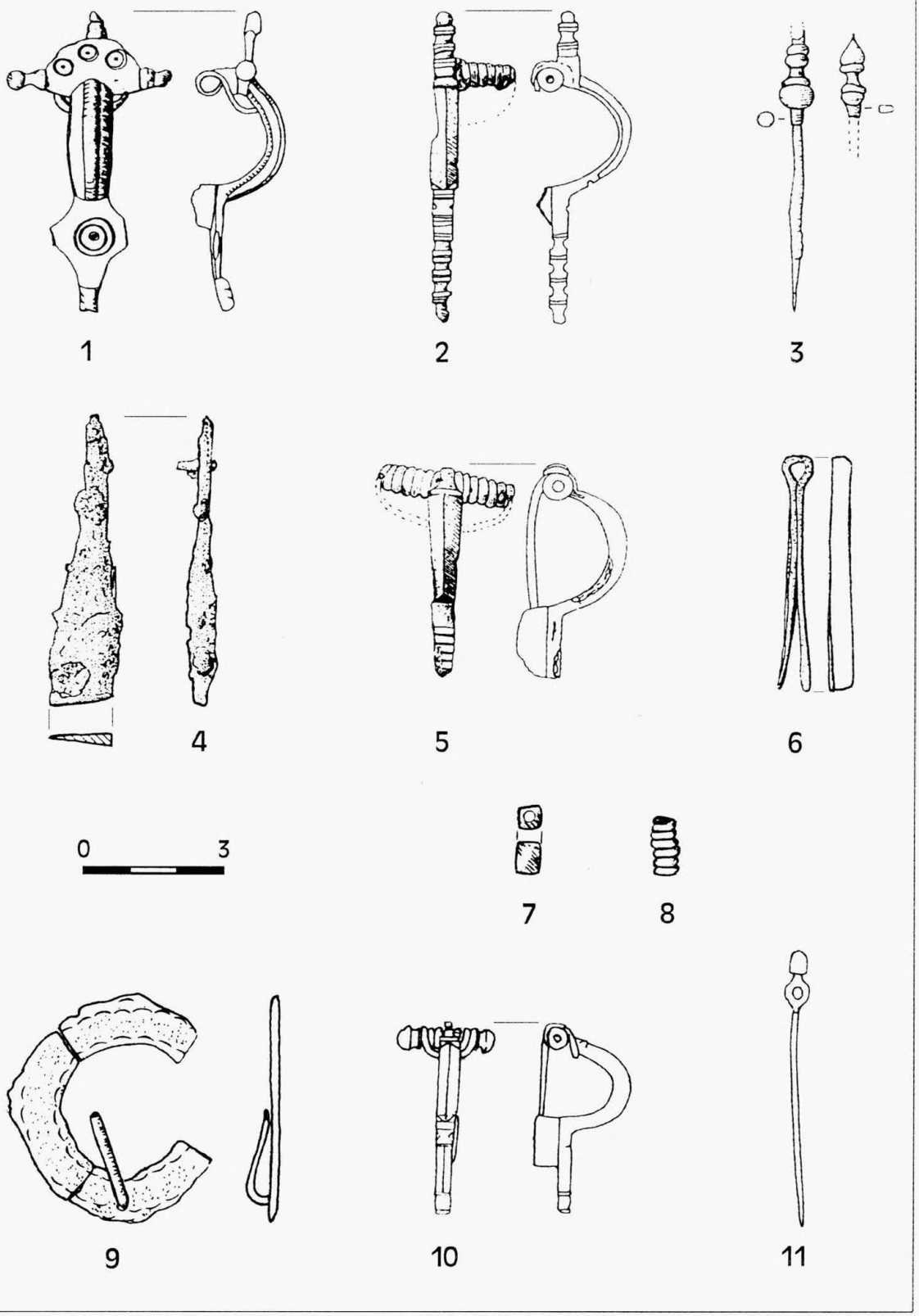
Pl. V. 1 – Roes, Rone parish; 2 – Kovrovo, grave 183; 3 – Smørenge; 4 – Bjärby; 5 – Sorte Muld; 6 – Kovrovo, grave 150; 7 – Hablingbo parish; 8 – Torslunda (acc. B. Nerman 1935; O. Tischler & H. Kemke 1902; N. Åberg 1923; Bornholms Museum).



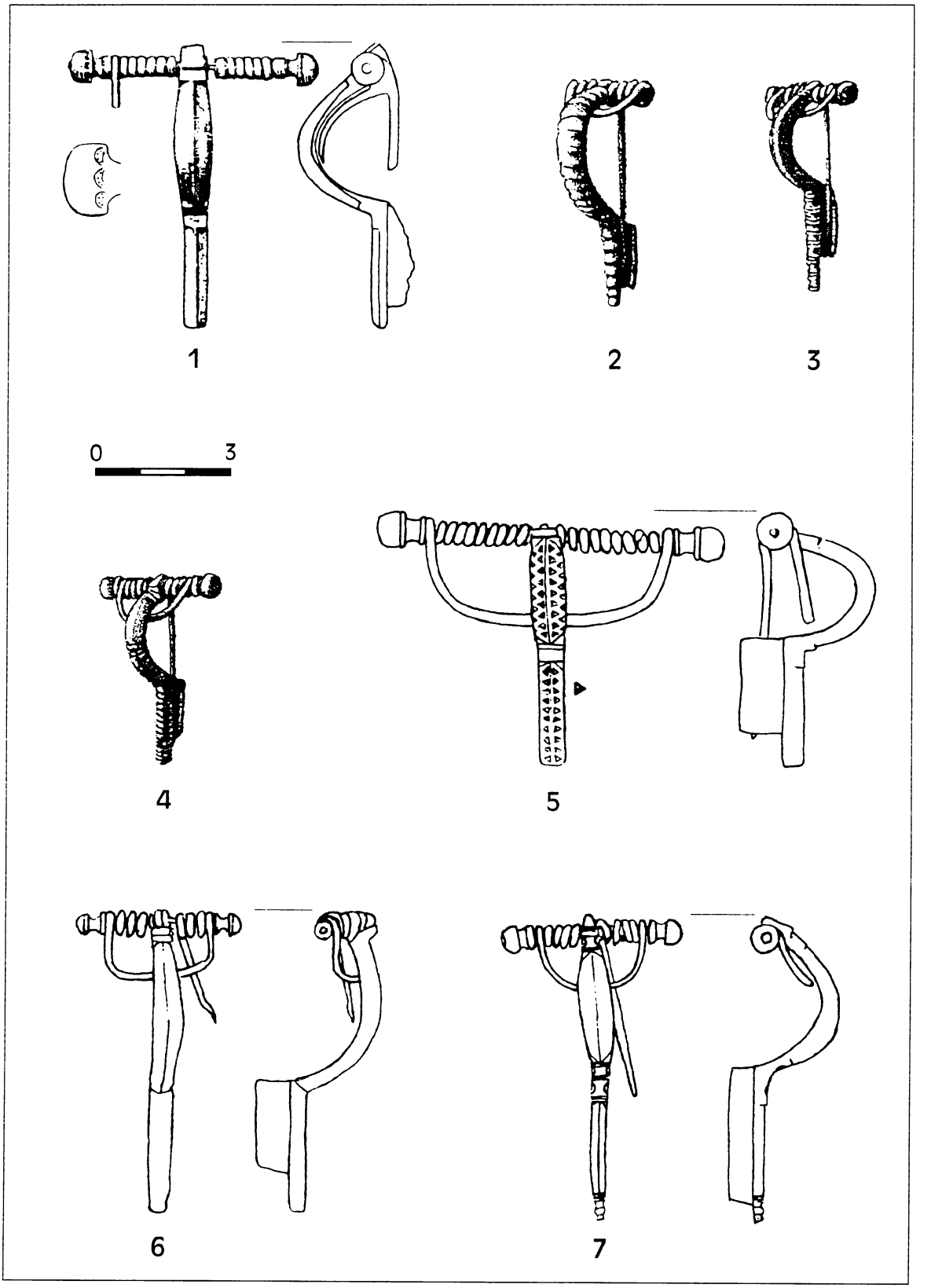
Pl. VI. 1 – Prostornoe; 2 – Kovrovo, grave 144; 3 – Osowa, barrow 53; 4 – Suchodoły; 5 – Sandby; 6–8 – Roes, Grötlingbo parish (acc. to J. Heydeck 1909b; O. Tischler & H. Kemke 1902; J. Jaskanis 1961; O. Kleemann 1941; B. Nerman 1935 and the author).



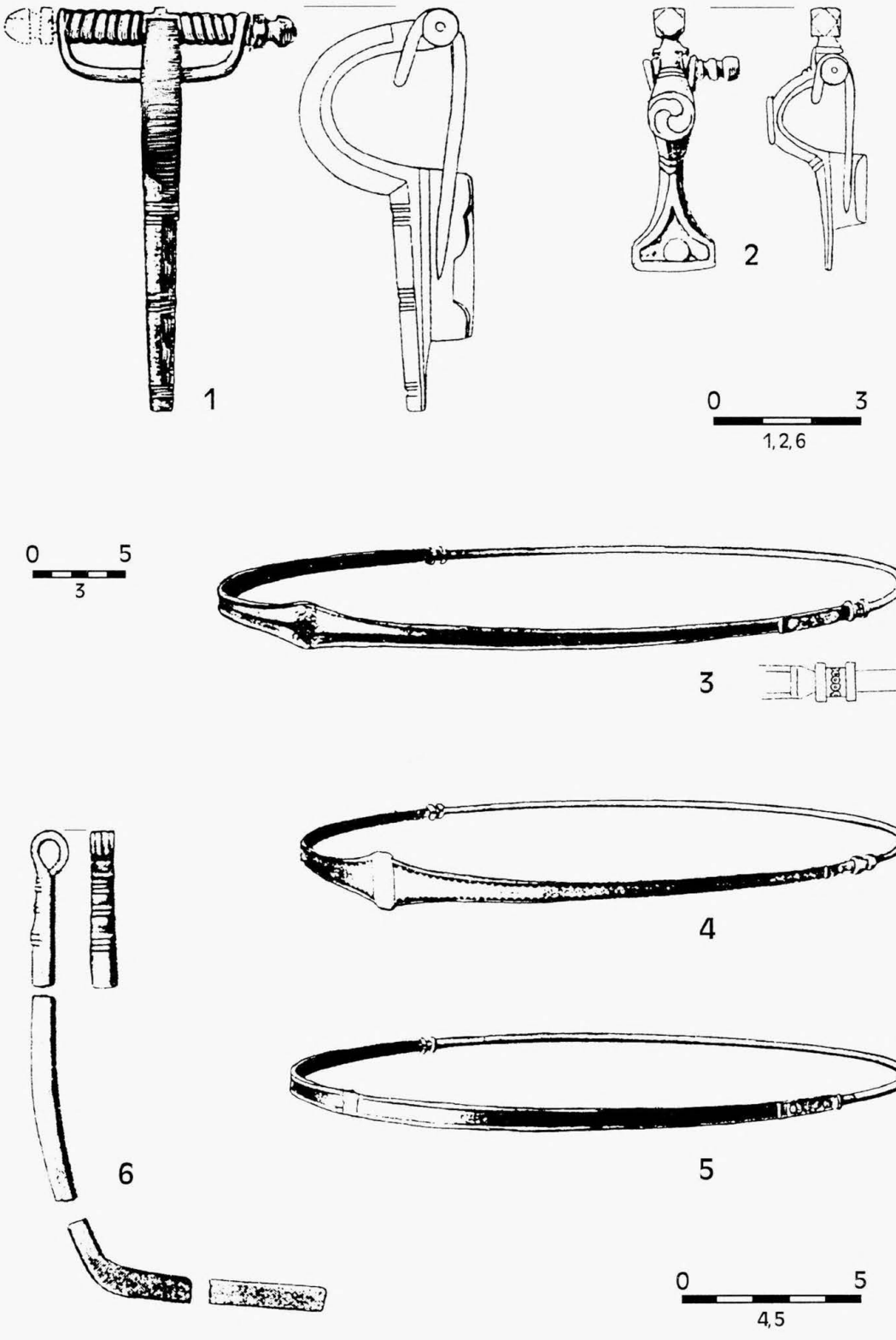
Pl. VII. Frombork, hoard (acc. to F. E. Peiser & H. Kemke 1914).



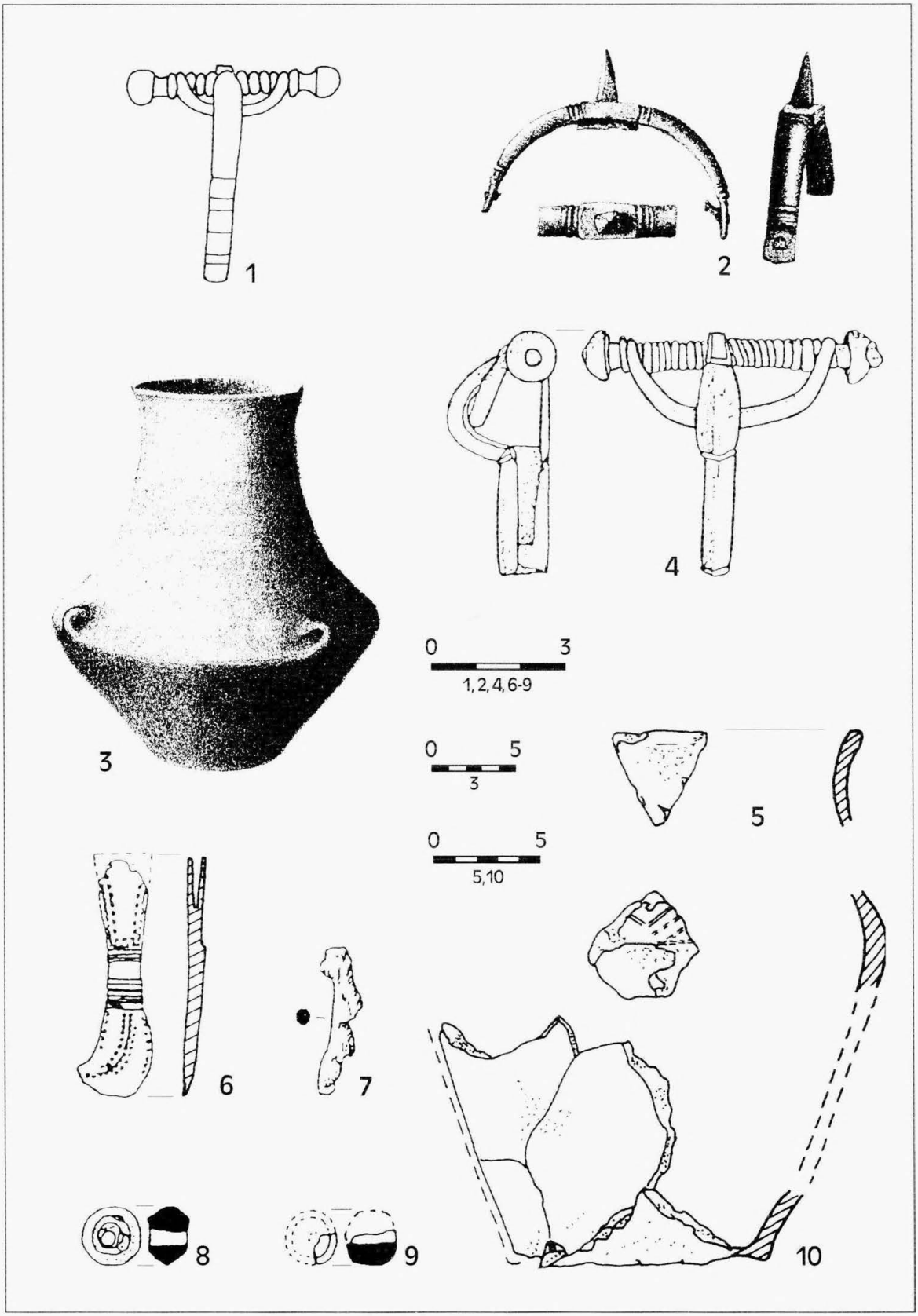
Pl. VIII. 1–9 – Kobbeå, grave 11; 10–11 – Vi Alvar, grave (acc. to A. Nørgård Jørgensen 1991a and the author).



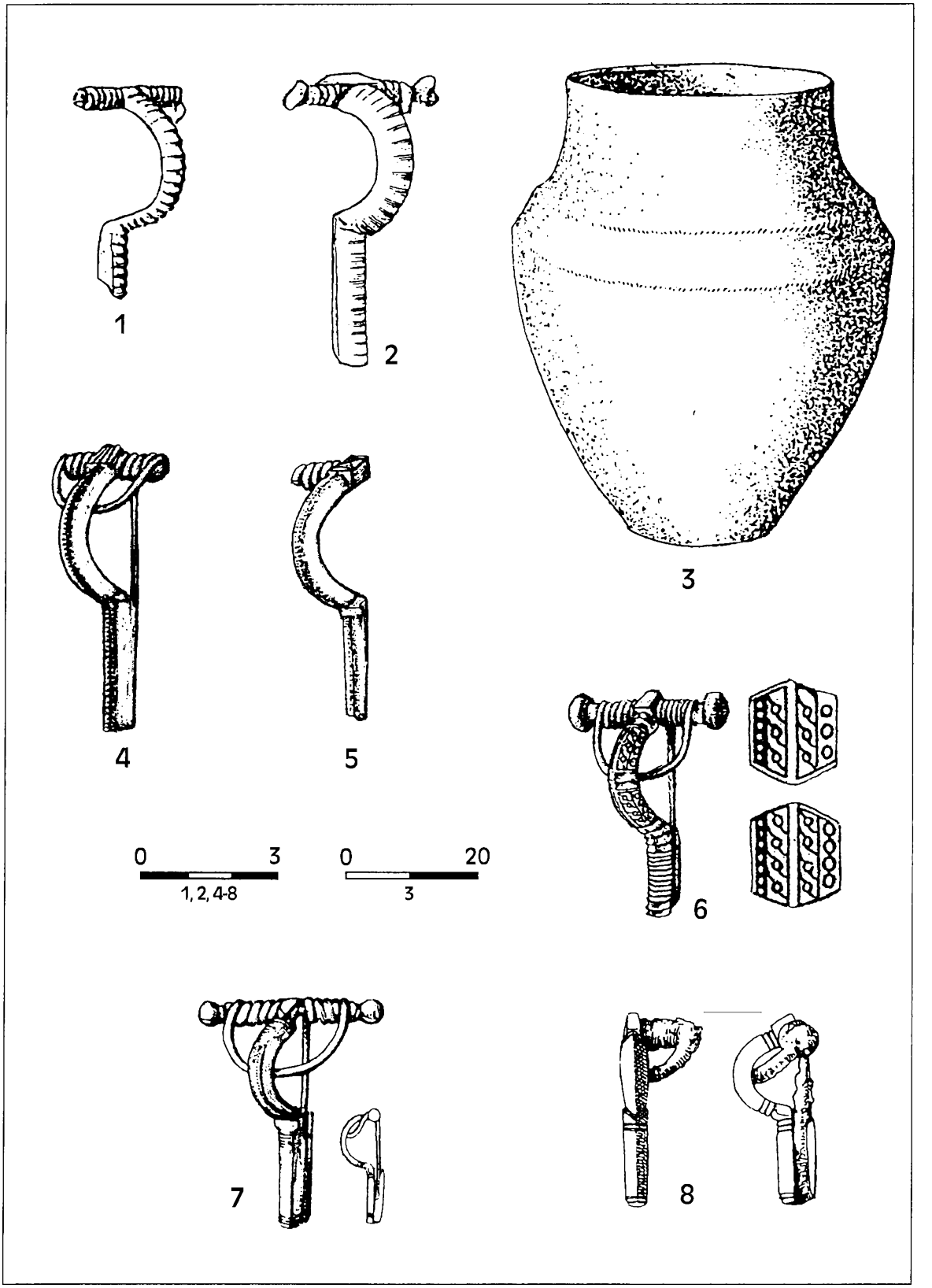
Pl. IX. 1 – Guldrupe; 2 – Lyublino, grave 25; 3 – Kovrovo, grave 128; 4 – Kovrovo, grave 155; 5 – Valsnäs; 6 – Himmelsberga; 7 – Rosenborg (acc. to B. Nerman 1935; O. Tischler & H. Kemke 1902 and the author).



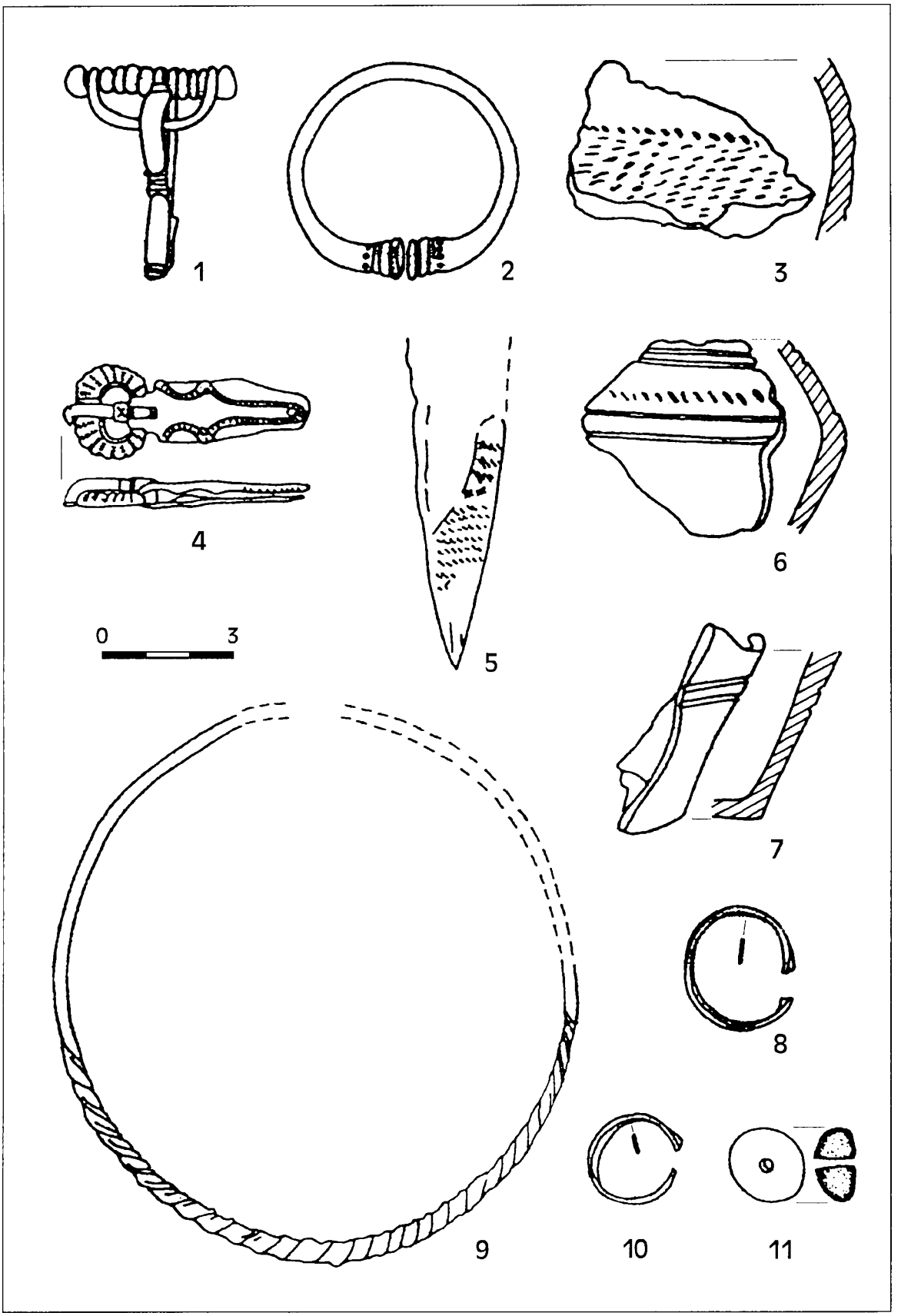
Pl. X. Hallbjens, grave (acc. to B. Nerman 1935).



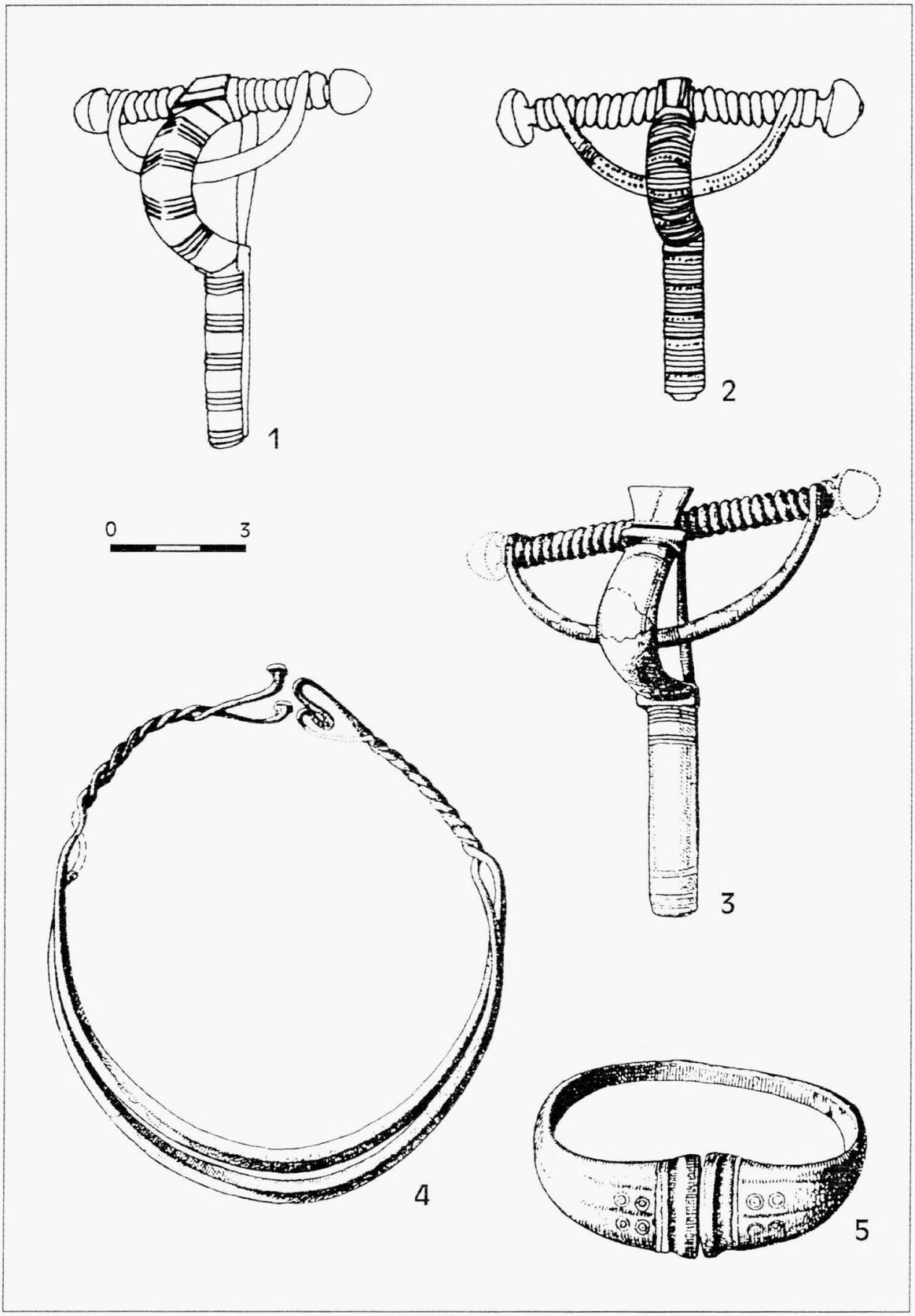
Pl. XI. 1–3 – Kovrovo, grave 109; 4–10 – Pionerskij-Zarechye "Gora Velikanov", grave 106 (acc. to O. Tischler & H. Kemke 1902; V. I. Kulakov 1994).



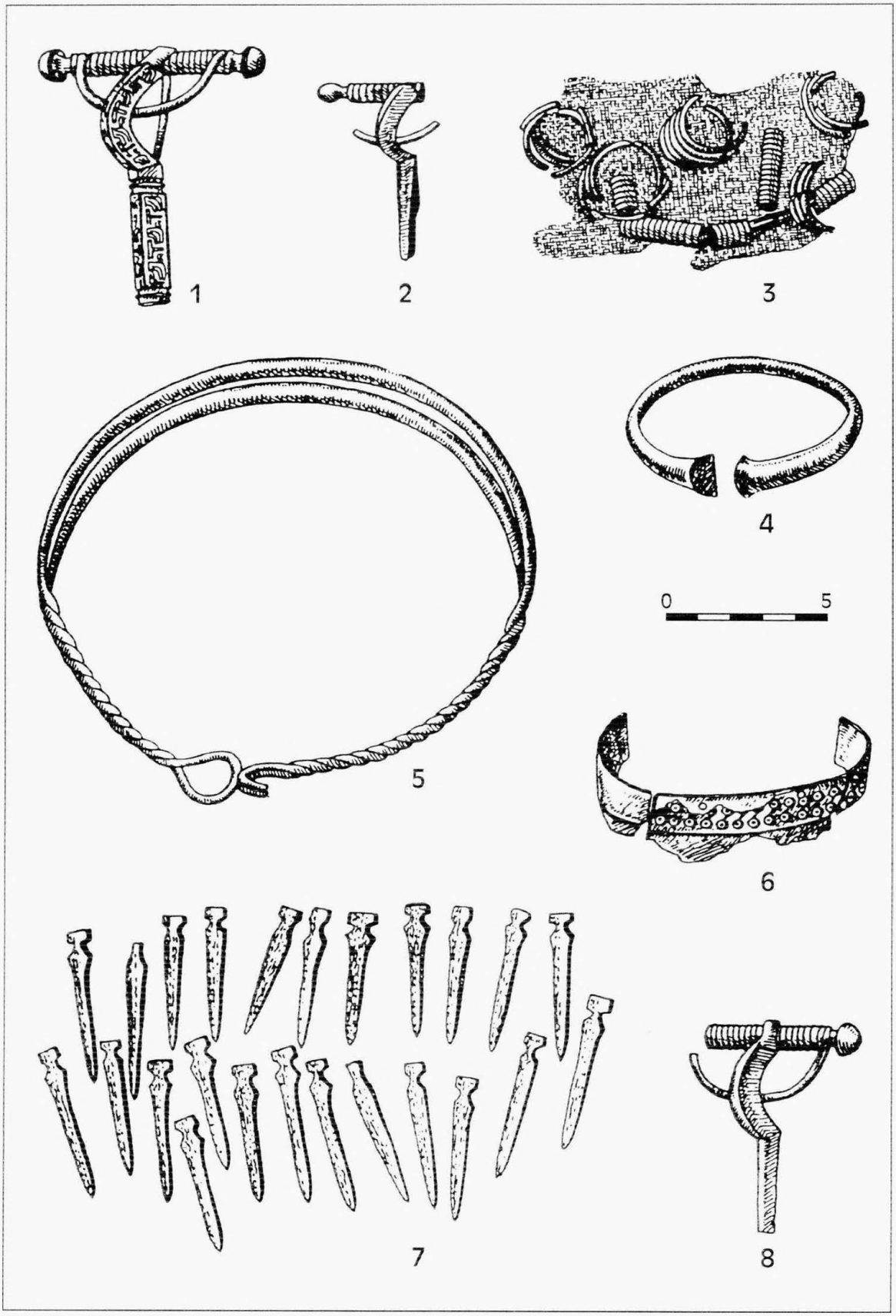
Pl. XII. 1 – Eisliethen, grave 56; 2–3 – Eisliethen, grave 43; 4 – Kovrovo, grave 106; 5 – Warnikam, grave 72; 6 – Lermontovo, grave 7; 7 – Nowa Boćwinka; 8 – Zdory (A. Jentzsch 1896; O. Tischler & H. Kemke 1902; O. Tischler 1879; N. Åberg 1919).



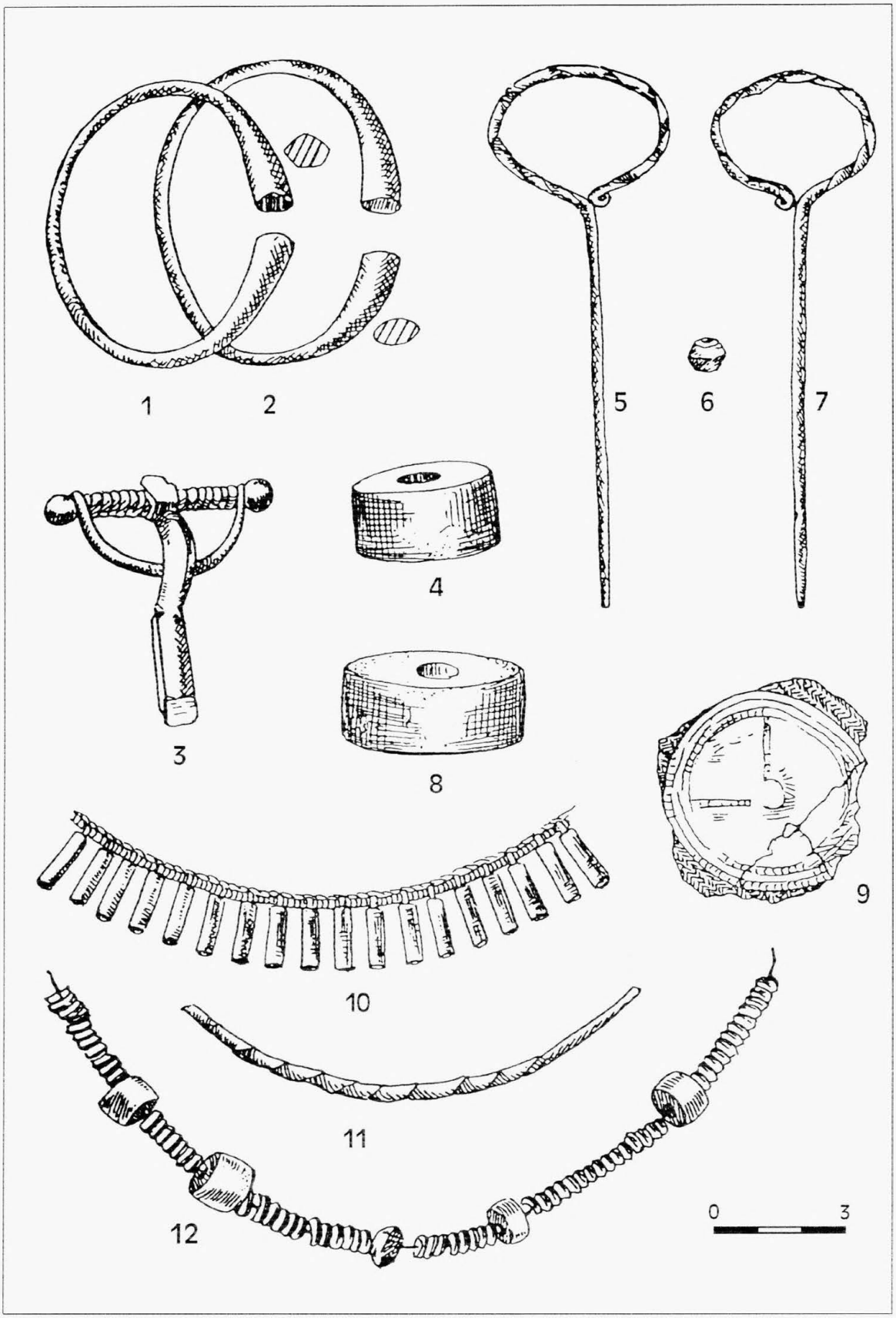
Pl. XIII. Miętkie, grave 418 (acc. to V. I. Kulakov 1989).



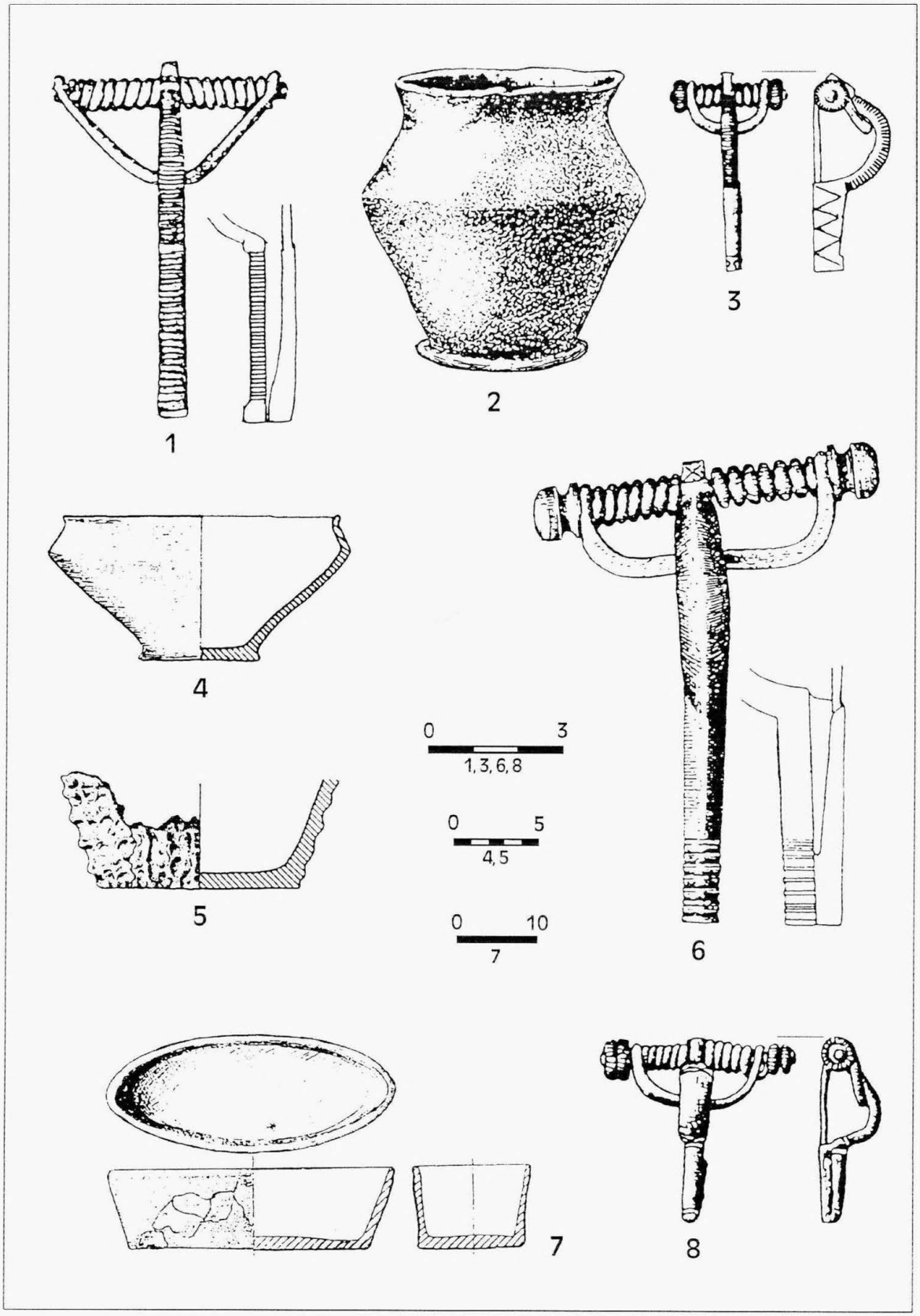
Pl. XIV. 1 – Greiženai; 2 – Rubokai, grave 48; 3–5 – Greiženai, grave VII (acc. to A. Bezzenberger 1900; N. Åberg 1919).



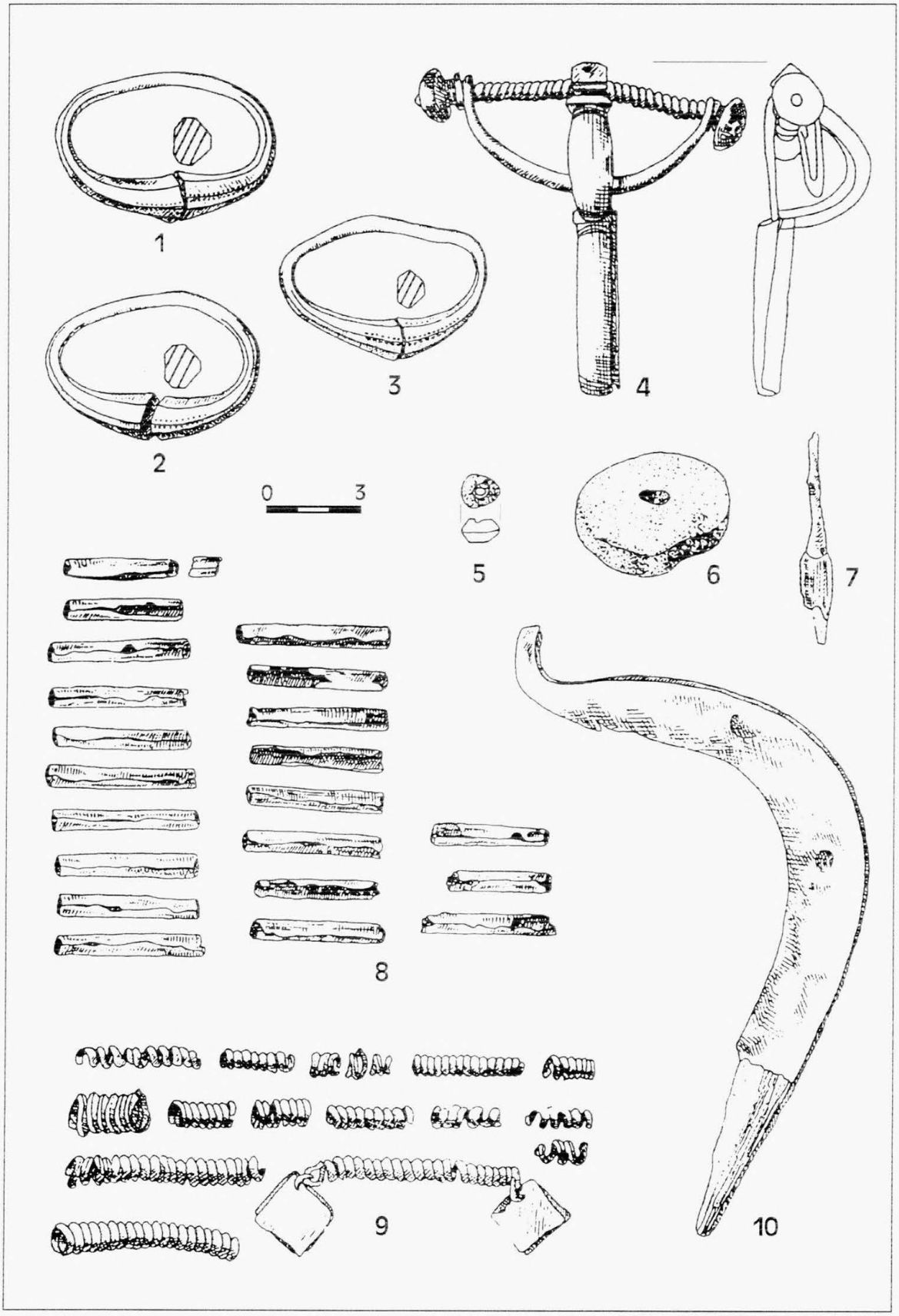
Pl. XV. Vidgiriai, grave 30 (acc. to V. Šimėnas 1996).



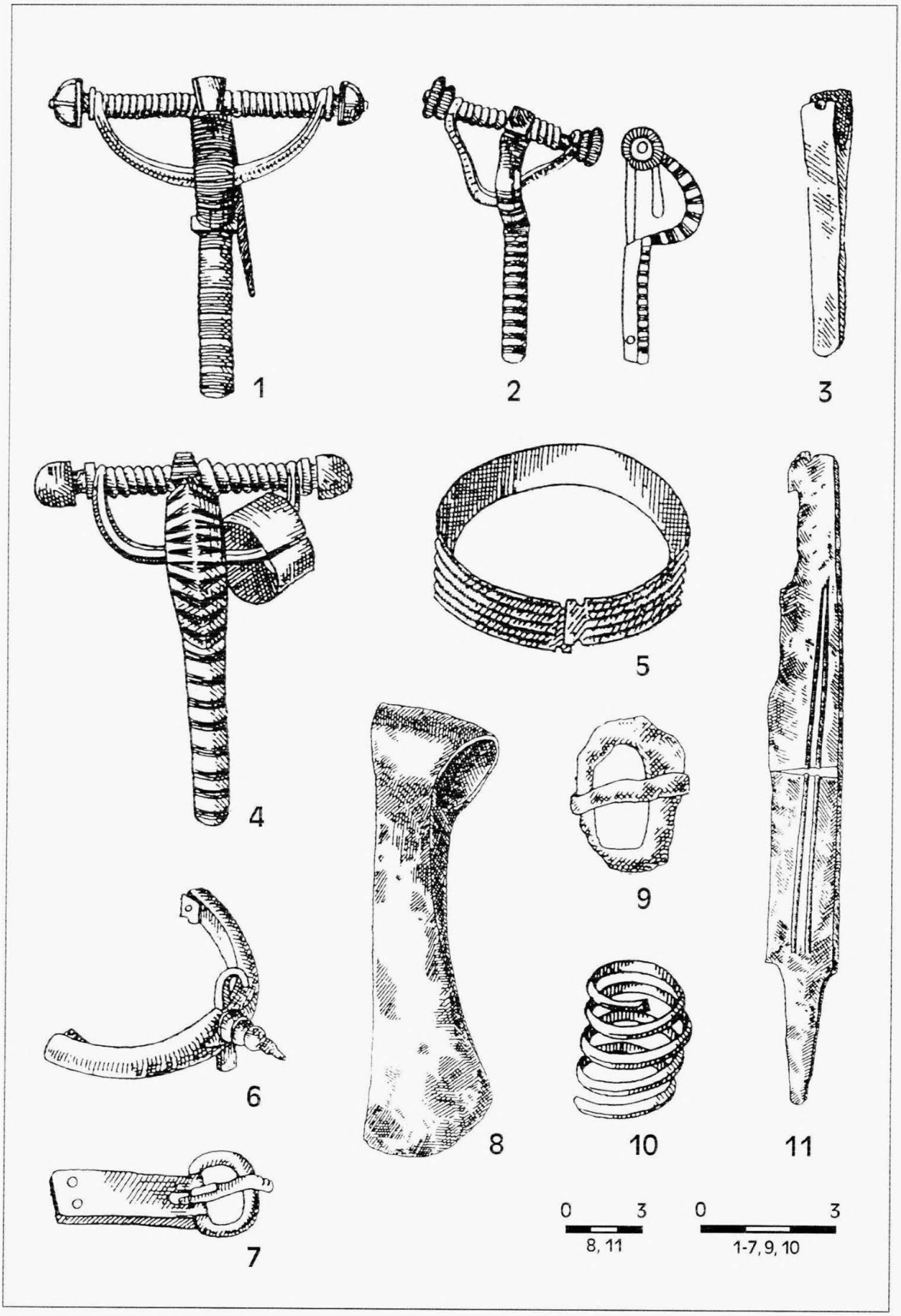
Pl. XVI. Tūbaušiai, grave 1 (acc. to R. Rimantienė 1968).



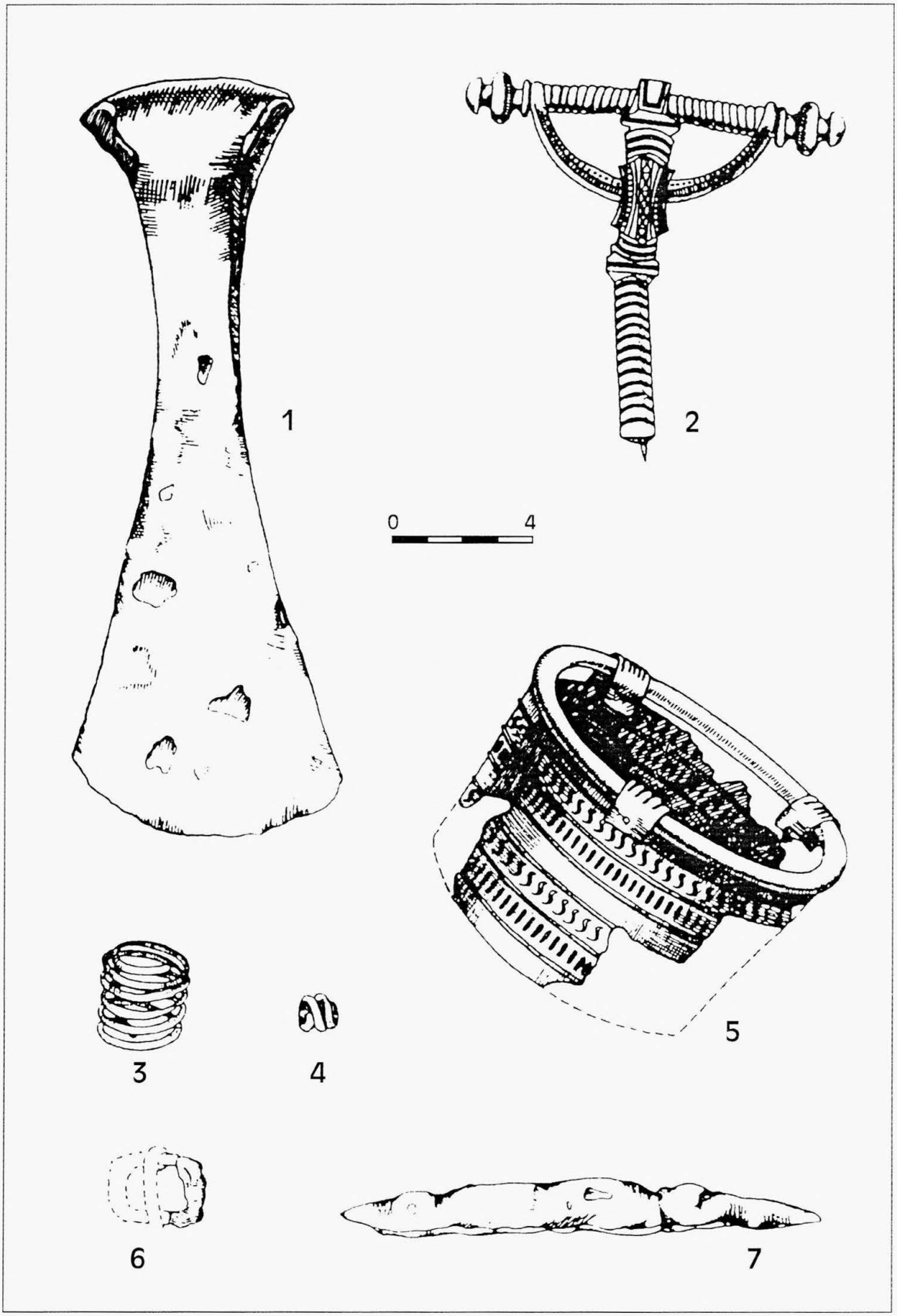
Pl. XVII. 1–2, 4 – Prudziszki, barrow 9, grave 2; 3 – Suchodoły; 5–6 – Prudziszki, barrow 2, grave 8; 7–8 – Bilwinowo, barrow 8, grave 4 (acc. to M. Kaczyński 1958a; 1958b; 1961).



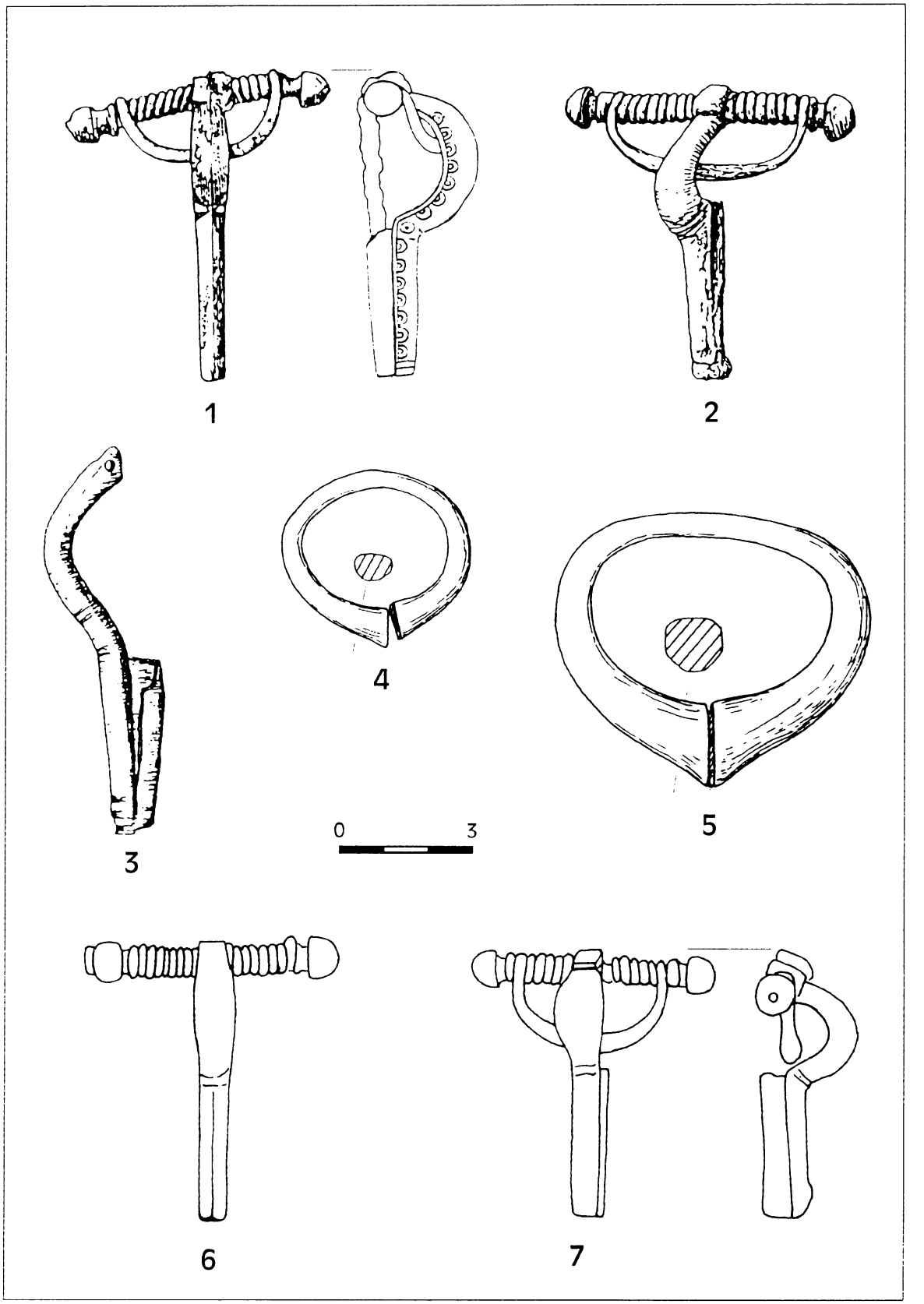
Pl. XVIII. Plinkaigalis, grave 186 (acc. to V. Kazakevičius 1993).



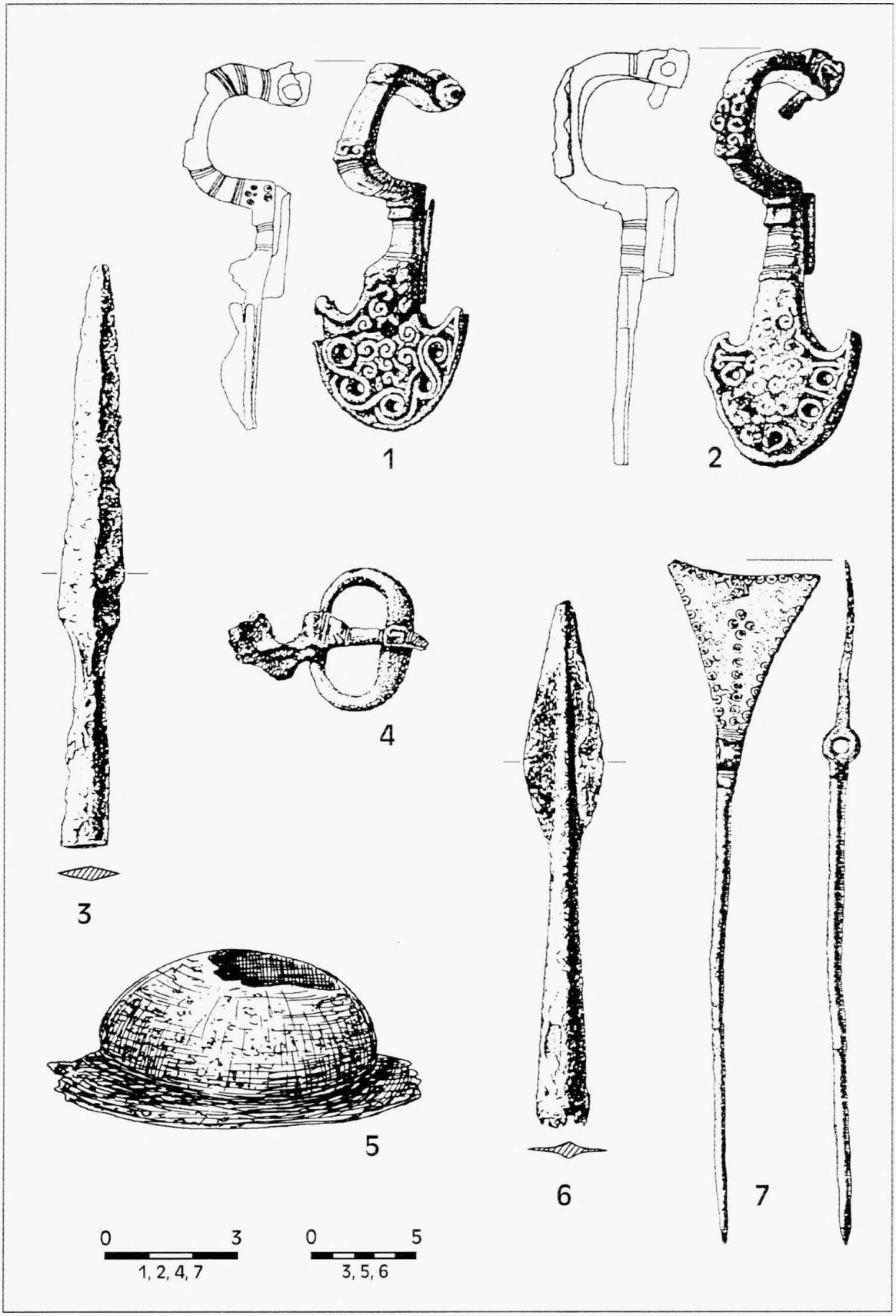
Pl. XIX. 1–2 – Plinkaigalis, loose finds; 3–11 – Plinkaigalis, grave 52 (acc. to V. Kazakevičius 1993).



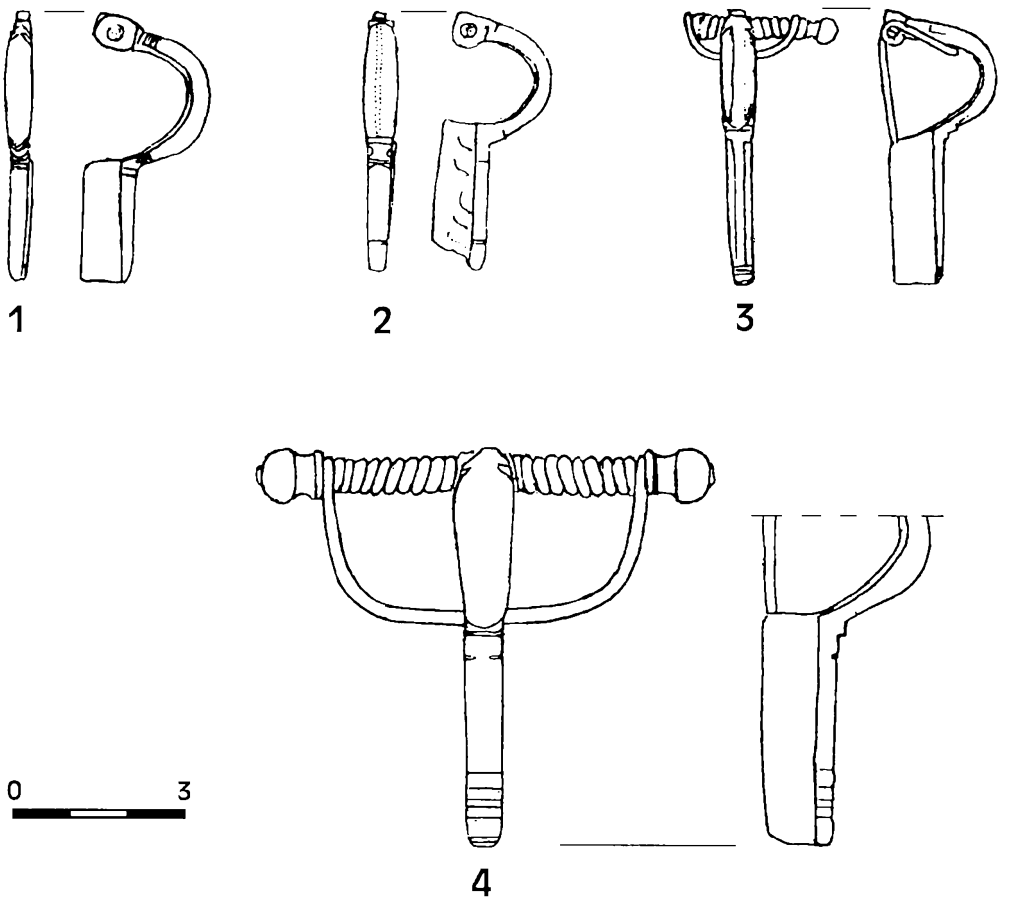
Pl. XX. Plinkaigalis, grave 80 (acc. to V. Kazakevičius 1993).

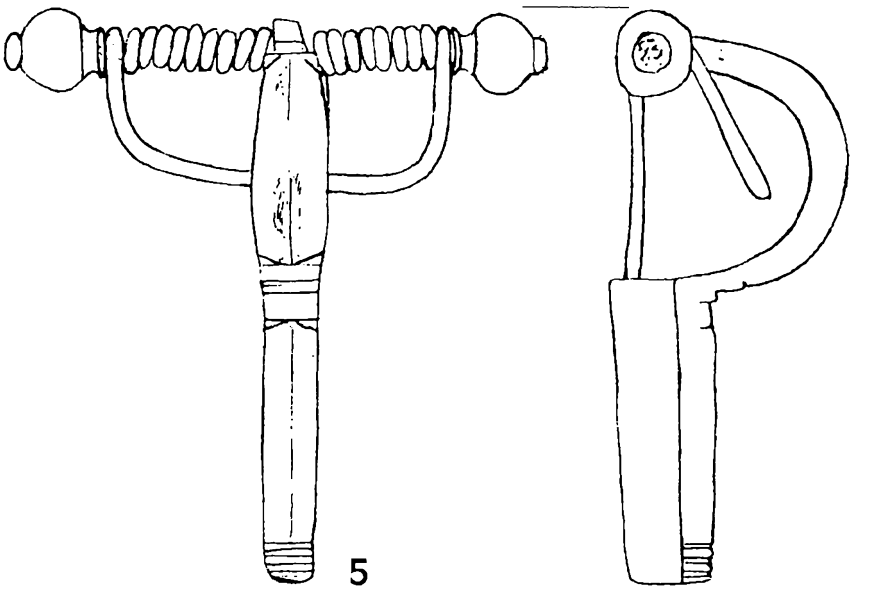


Pl. XXI. 1 – Kohtla Järve; 2 – Roismala; 3 – Malaks (?); 4–7 – Kirimäe, grave (acc. to M. Schmiedehelm 1926; 1955; A. Hackman 1905).

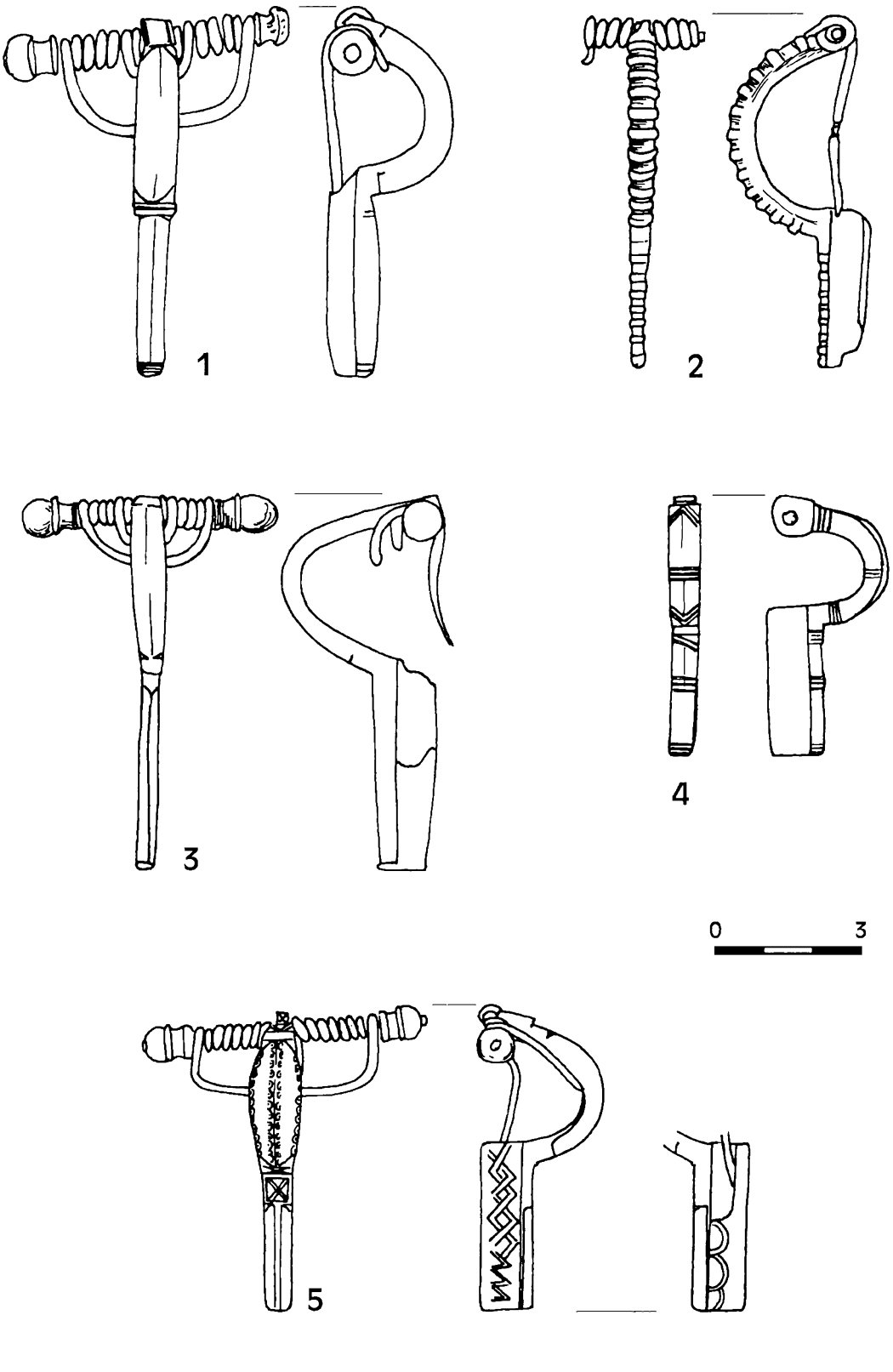


Pl. XXII. Kirimäe, grave (acc. to M. Schmiedehelm 1926).

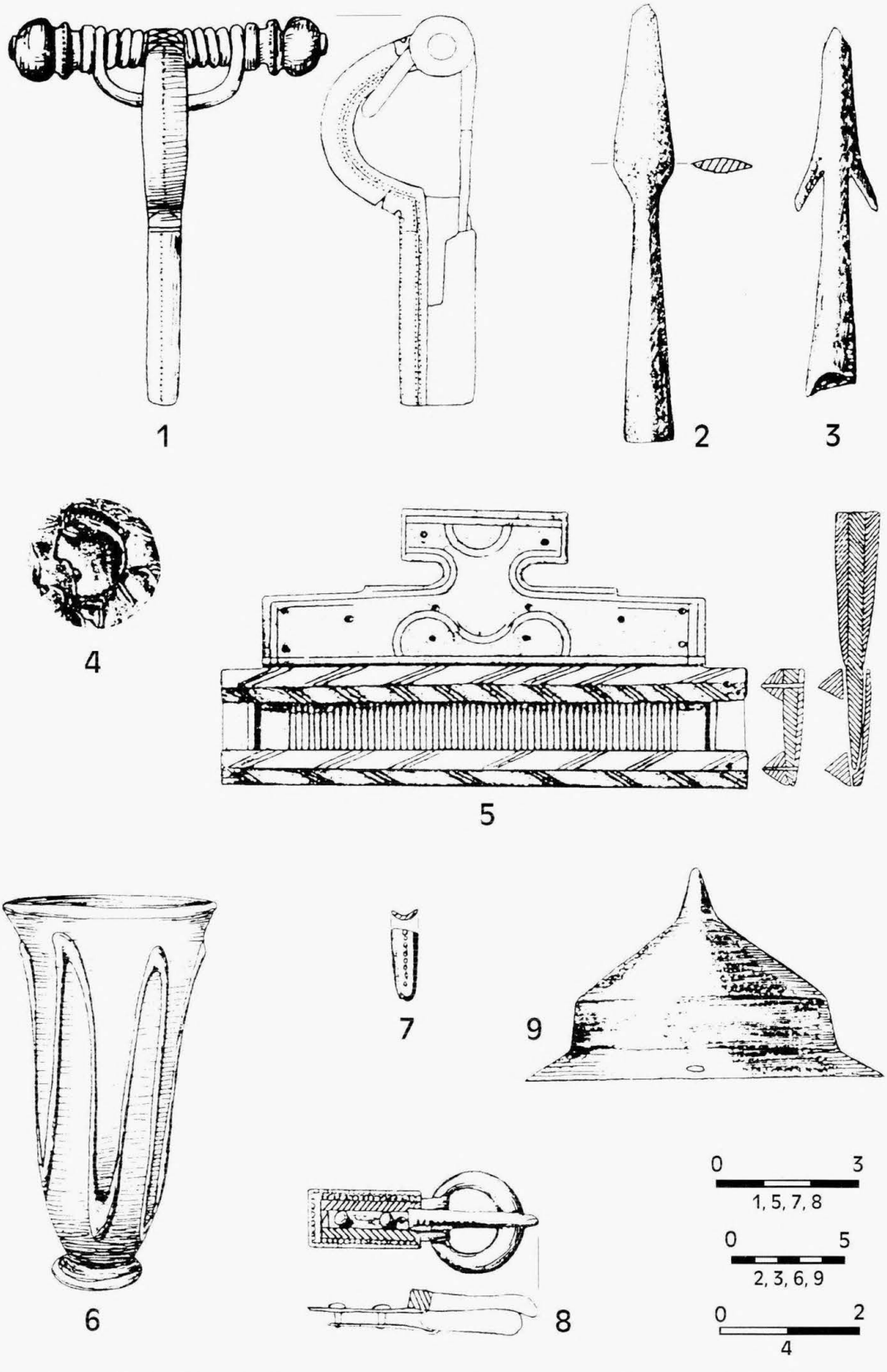




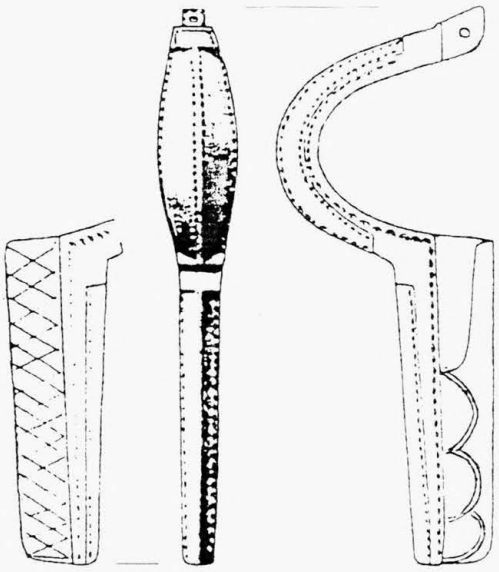
Pl. XXIII. 1 – Gråborg; 2 – Bostorp; 3 – Övre Ålebäck; 4 – Holmetorp; 5 – Dörby (acc. to the author).



Pl. XXIV. 1 – Kaplansborklet; 2 – Saltuna; 3 – Mellings; 4 – Smørenge; 5 – Lau parish (acc. to the author).



Pl. XXV. Barshaldershed, grave (acc. to B. Nerman 1935).



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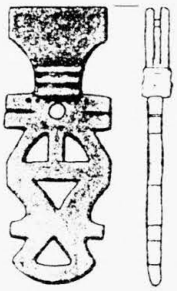

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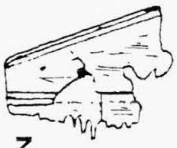

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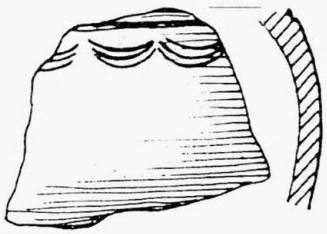

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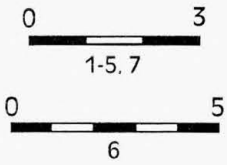

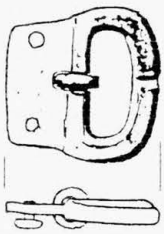

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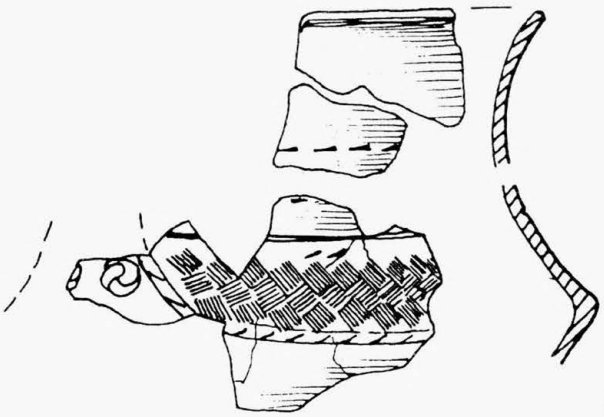

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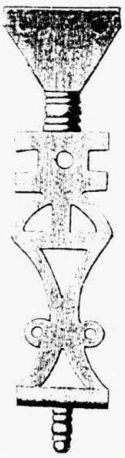

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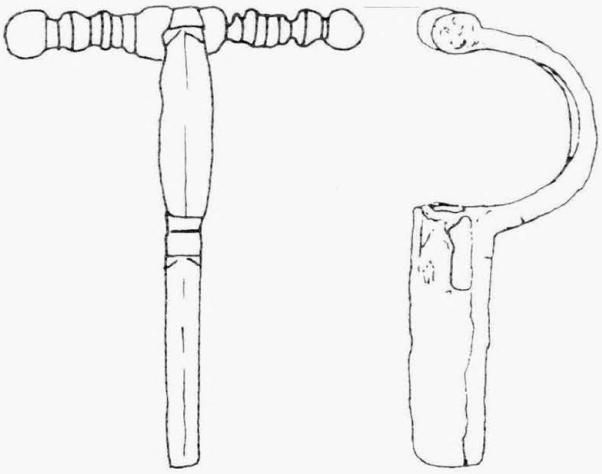
Pl. XXVI. 1, 4, 6–7 – Havor, grave 183; 2, 3, 5 – Bjärs, grave 16 (acc. to B. Nerman 1935).



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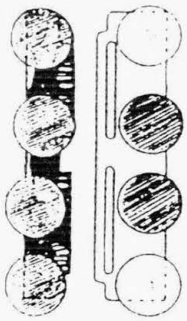

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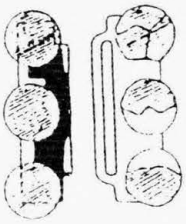

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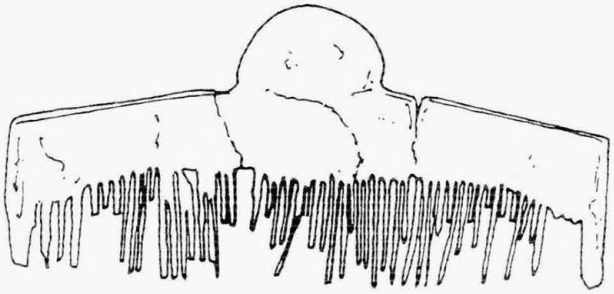

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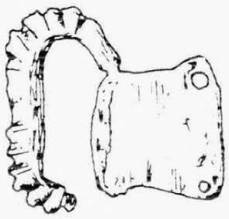

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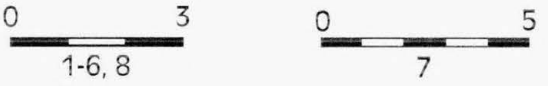

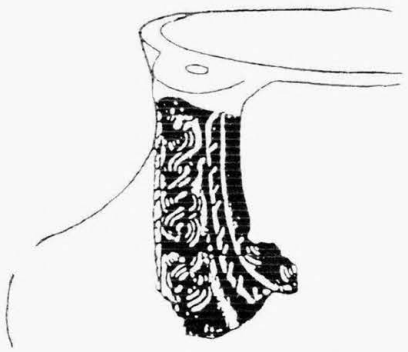

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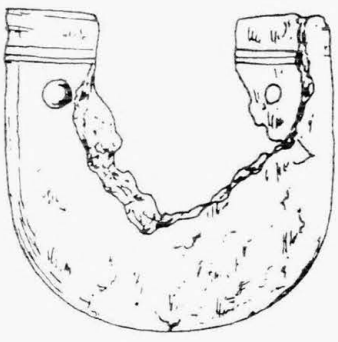
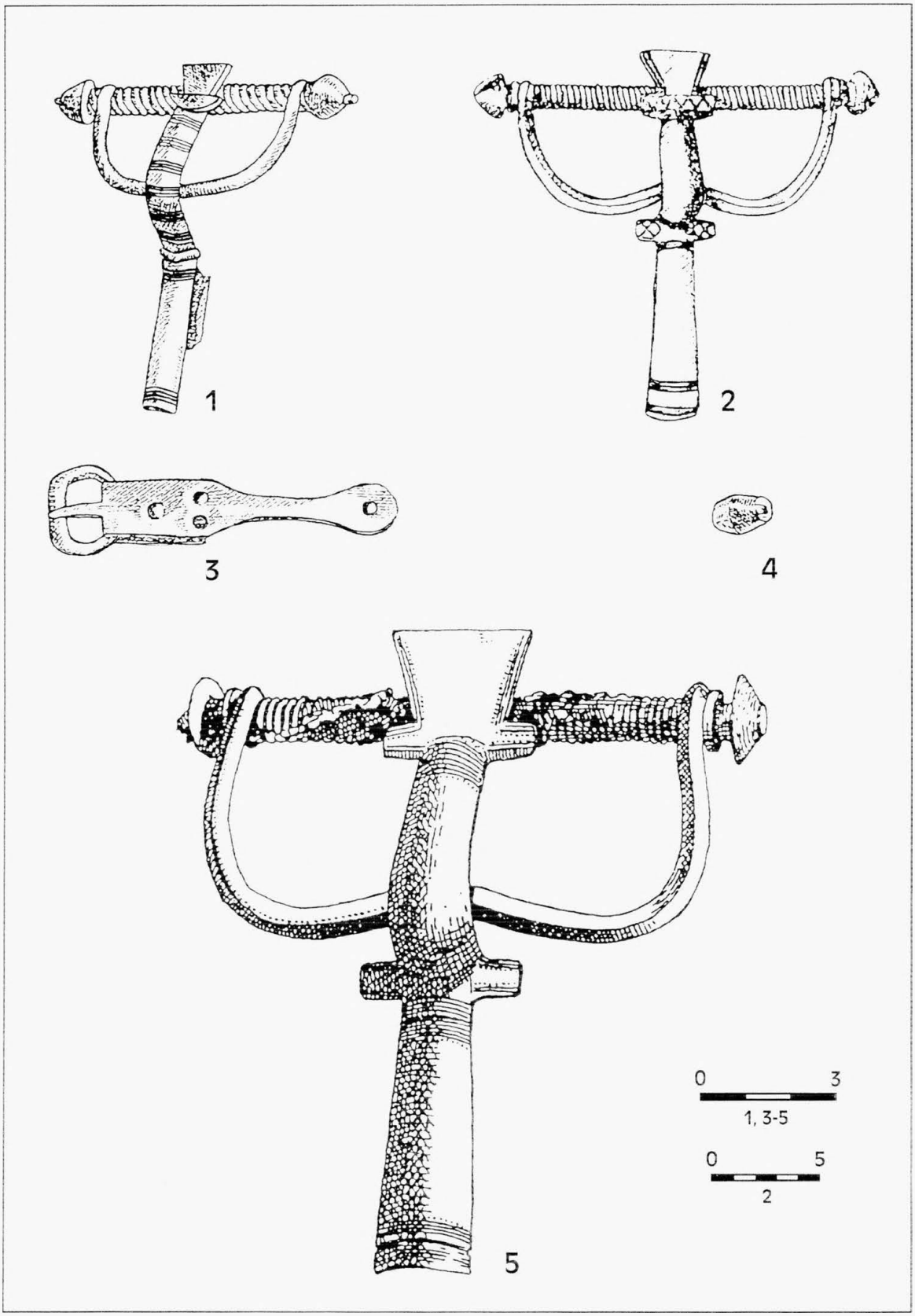
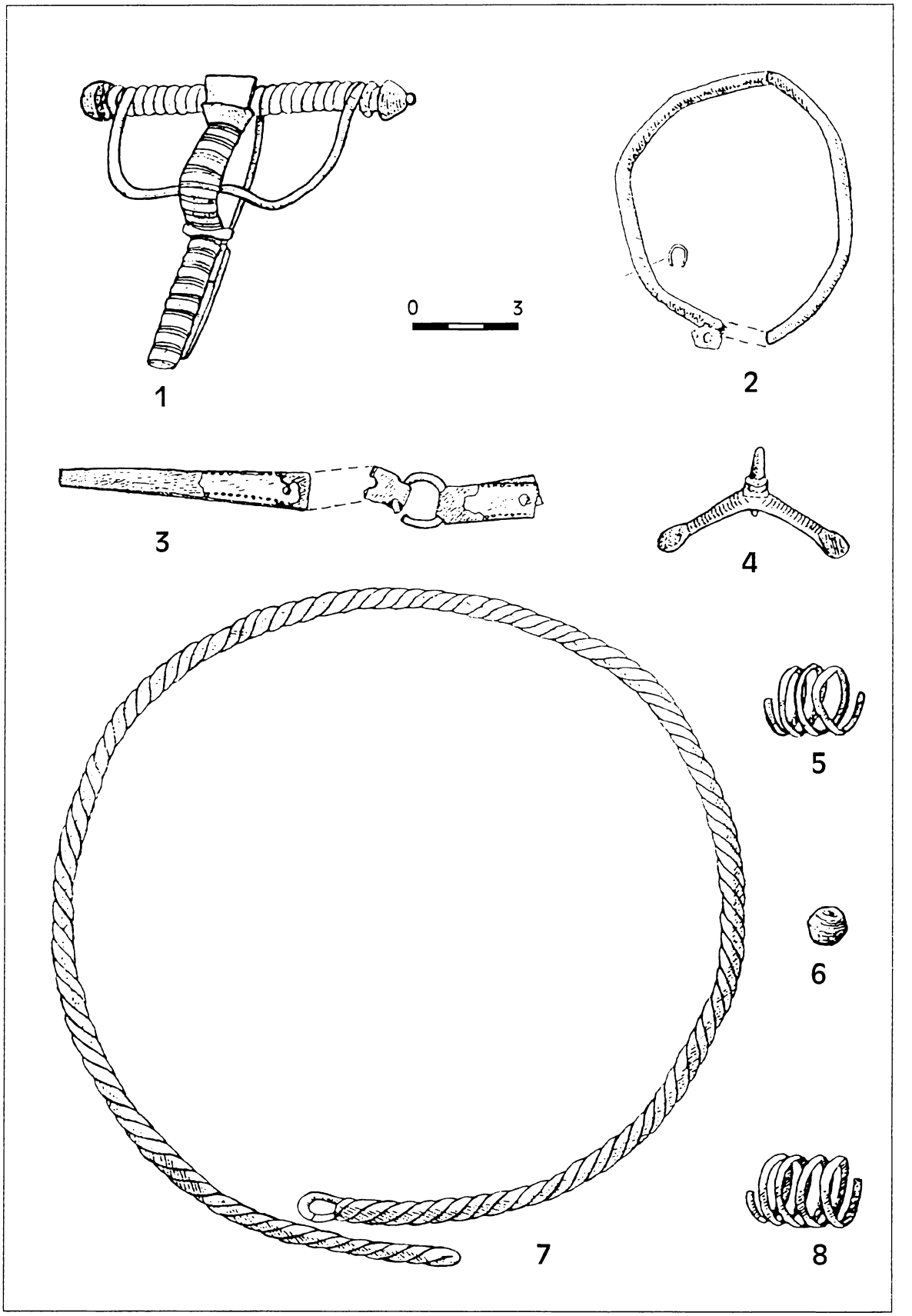


8

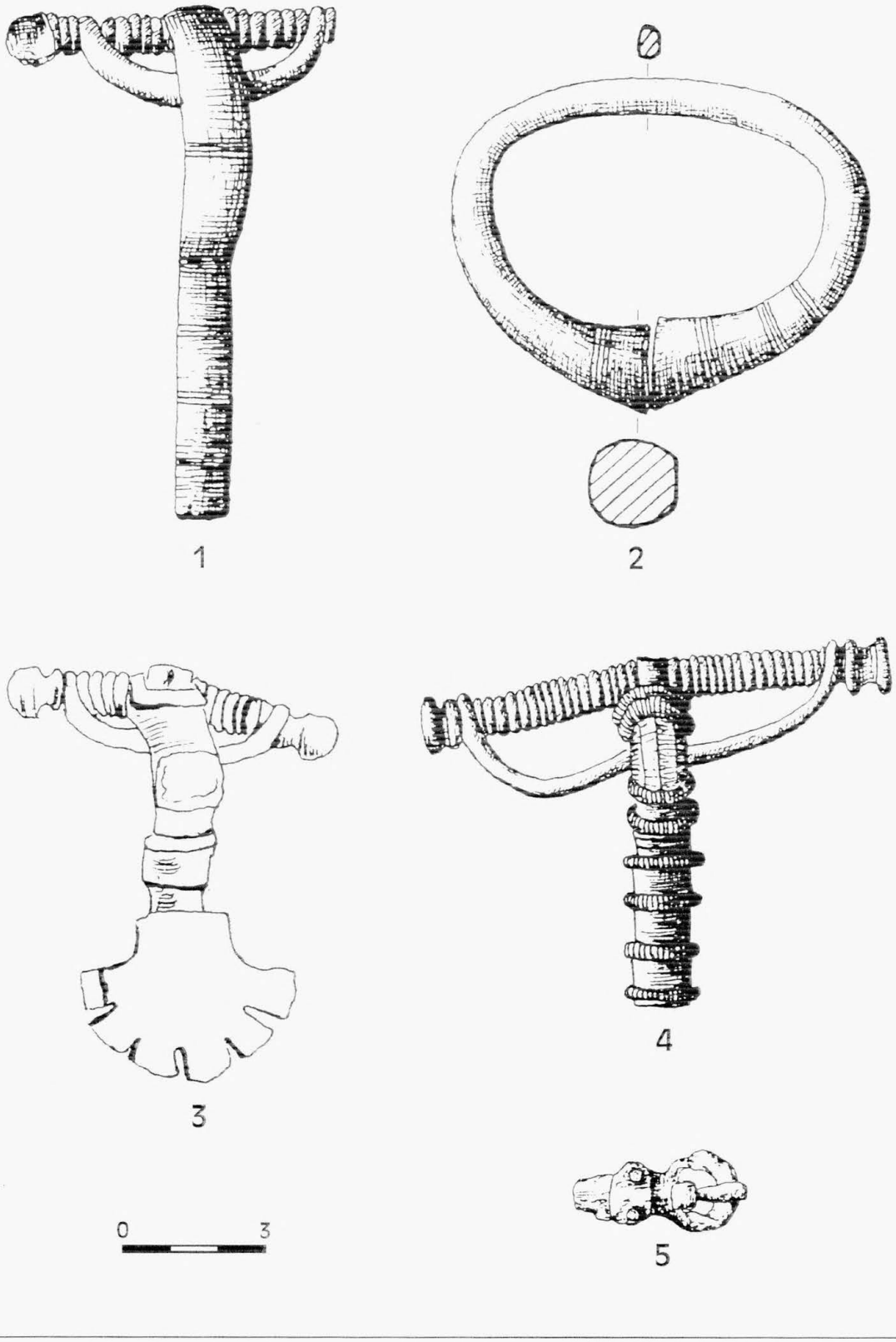
Pl. XXVII. Salands, grave (acc. to U. Silvén 1956).



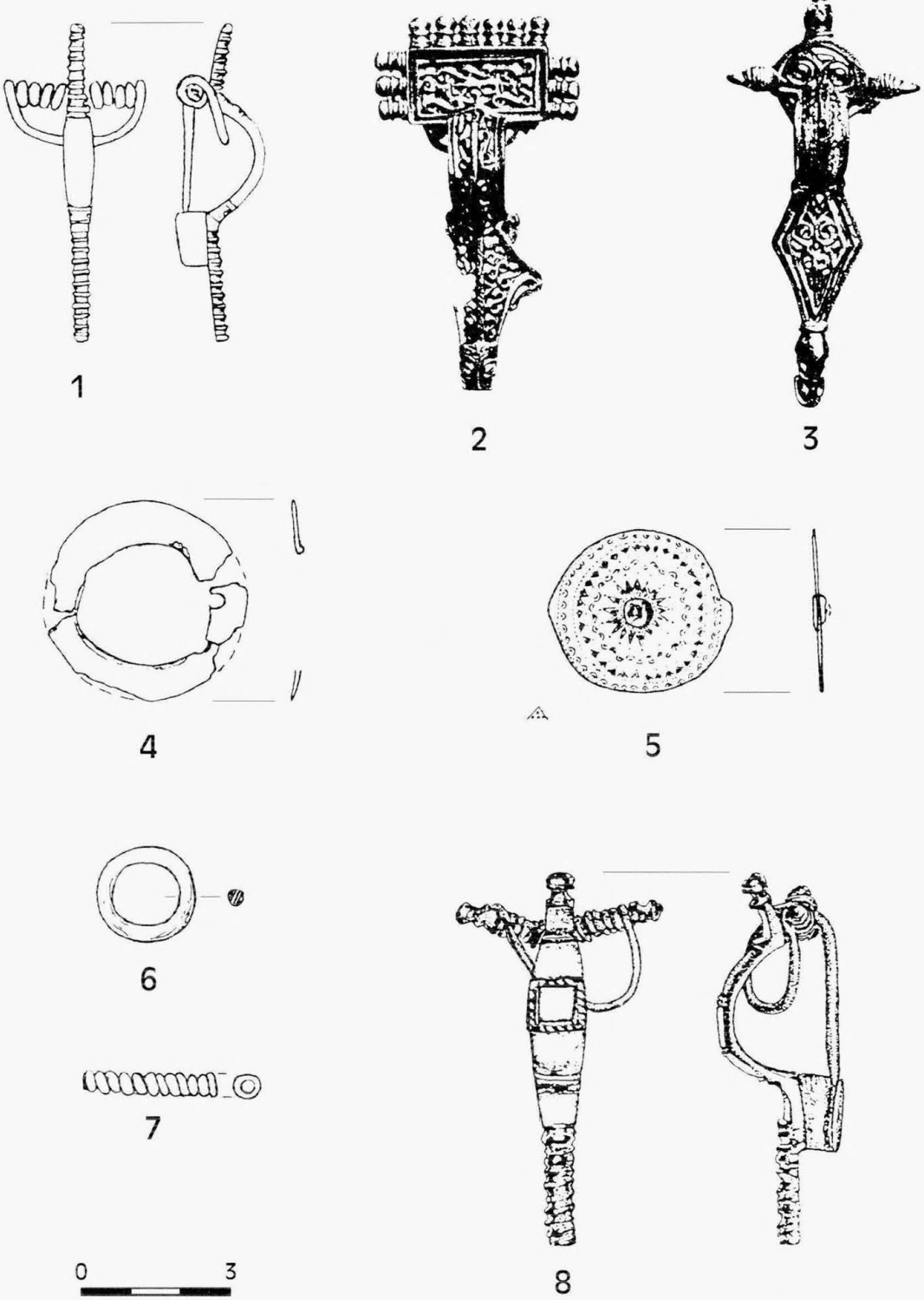
Pl. XXVIII. 1, 3–4 – Pagrybis, grave 134; 2 – Vilkų Kampas, grave 5; 5 – Weszeiten (acc. to L. Vaitkunskienė 1995; L. Nakaitė 1970; N. Åberg 1919).



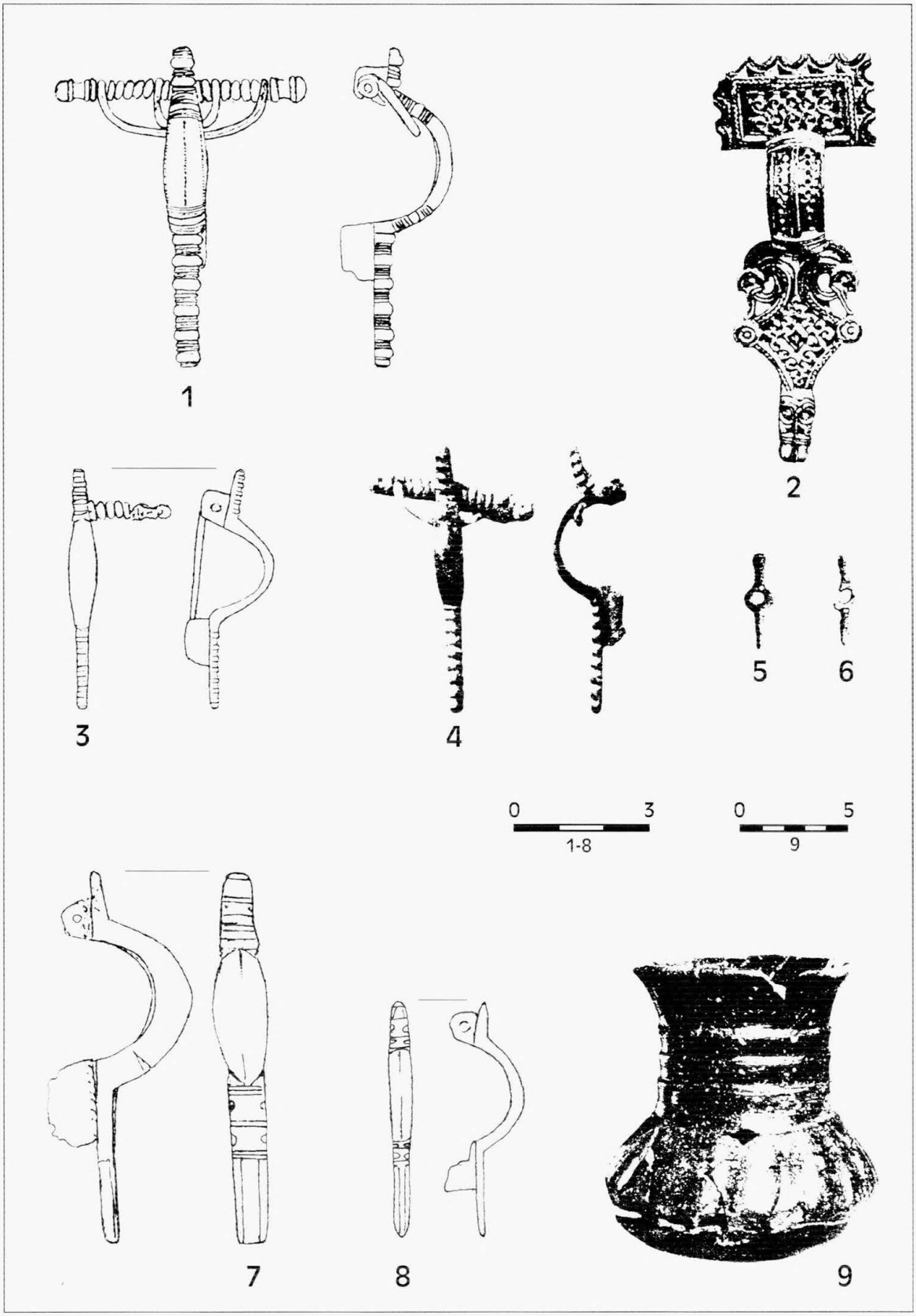
Pl. XXIX. Pagrybis, grave 85 (acc. to L. Vaitkunskienė 1995).



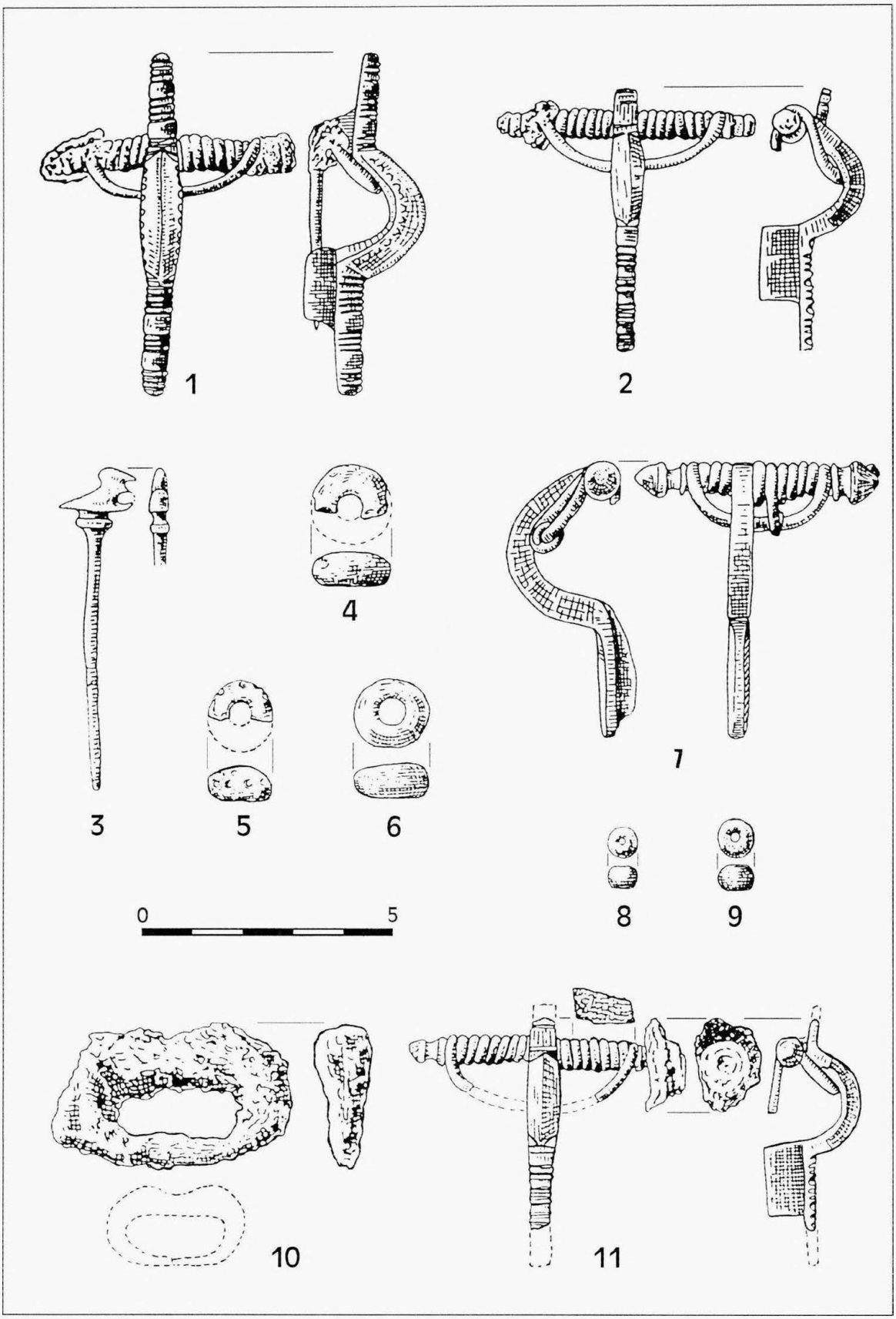
Pl. XXX. Aukštkiemiai, grave 132 (acc. to N. Åberg 1919).



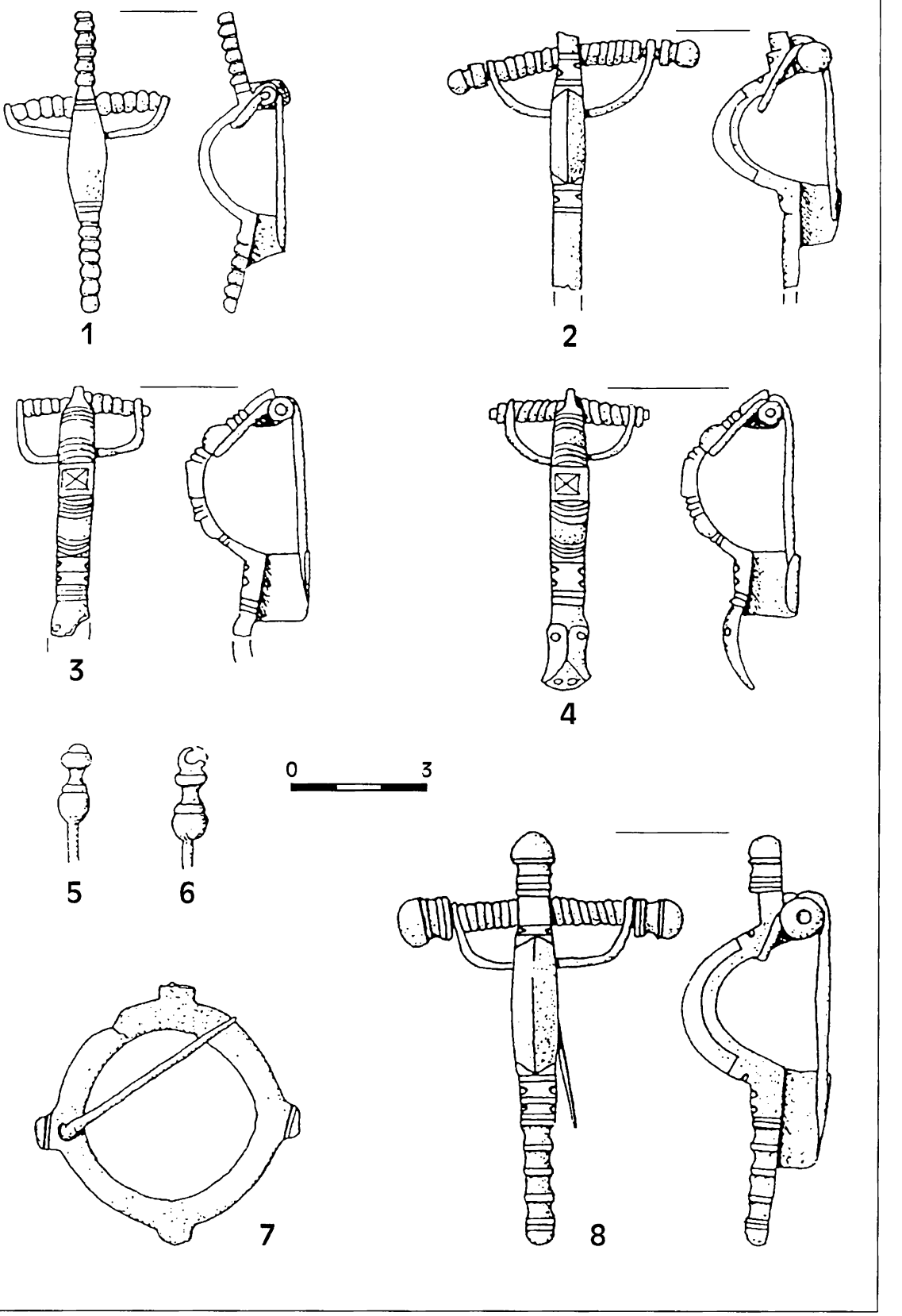
Pl. XXXI. 1–7 – Melsted, grave 8; 8 – Sorte Muld (acc. to O. Klindt-Jensen 1957; Bornholms Museum and the author).



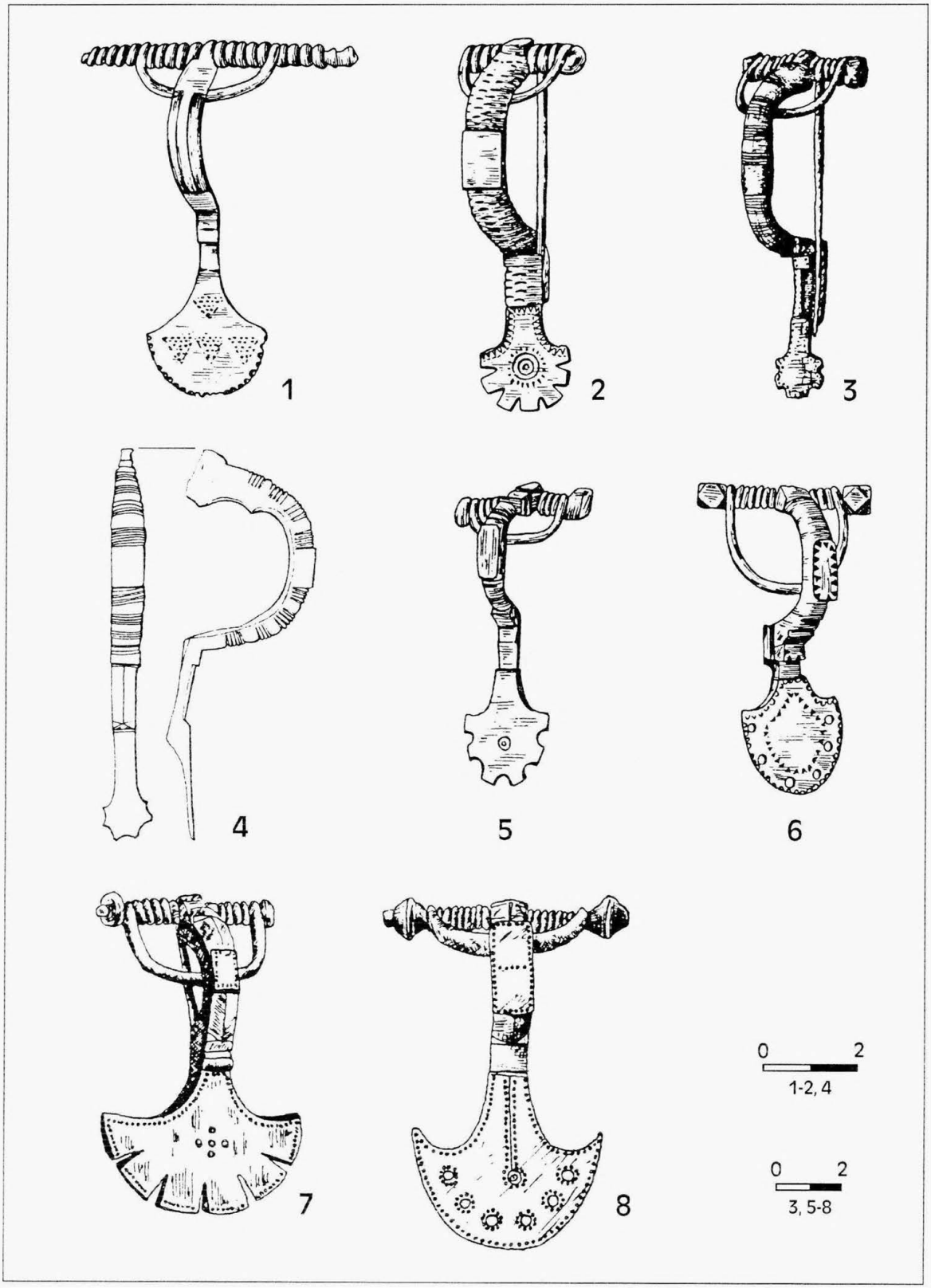
Pl. XXXII. 1–3 – Møllebakken, grave 1; 4–6, 9 – Gårdlösa, grave 72; 7 – Dalshøj; 8 – Sorte Muld (acc. to O. Klindt-Jensen 1957; B. Stjernquist 1977 and the author).



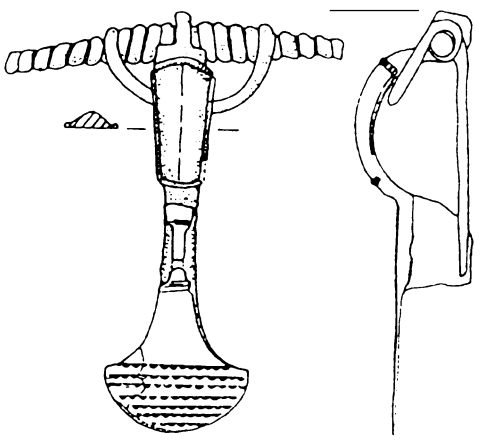
Pl. XXXIII. Głuszyno, grave I (object 11) (acc. to H. Machajewski 1992b).



Pl. XXXIV. Levka, grave 2 (acc. to J. Seit Jespersen 1986).



Pl. XXXV. Crossbow brooches with a star- or spade-like foot. 1 – type I (Warnikam, grave 25); 2 – type II (Kovrovo, grave 164); 3 – type IV (Greibau, grave 216); 4 – type V (Uzornoe, grave b); 5 – type VI (Tyrma); 6 – type VII (Notsjö); 7 – type IIIA (Rudaičiai I, grave 5); 8 – type IIIB (Pļavniekkalns) (acc. to A. Bitner-Wróblewska 1991a).



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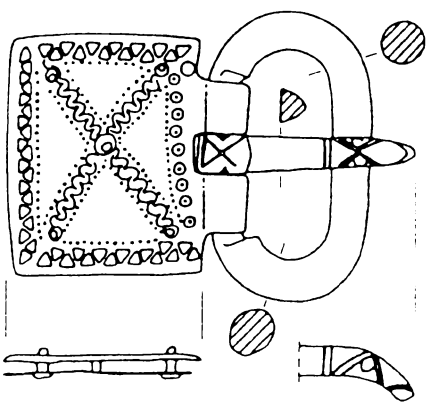

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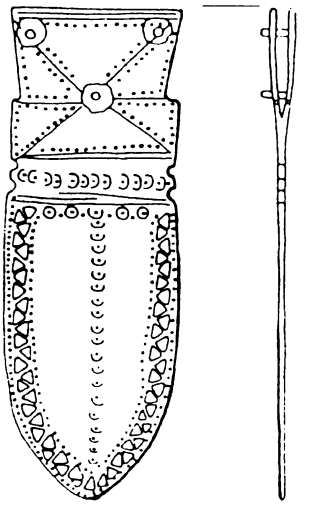

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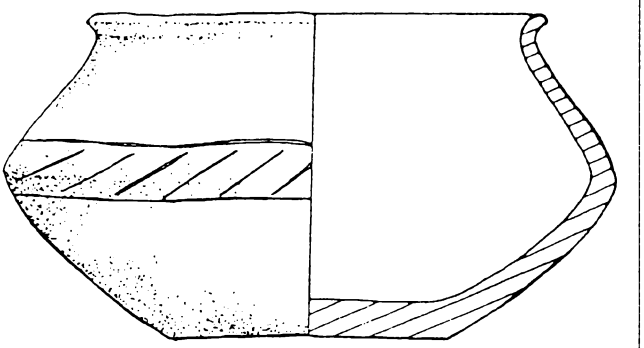

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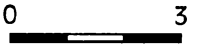

1-3, 5

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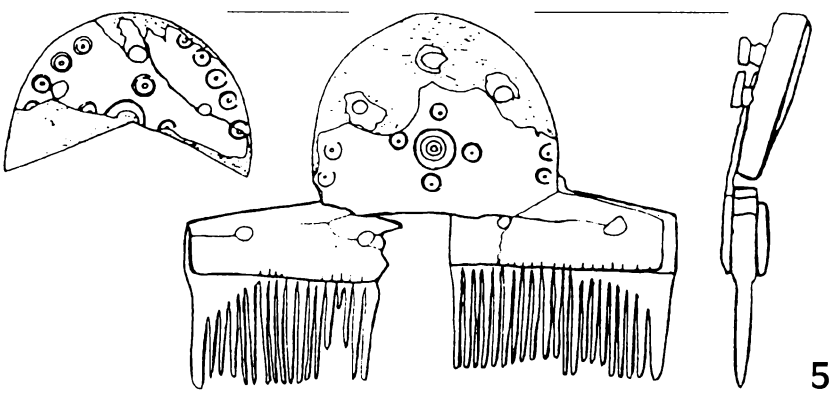
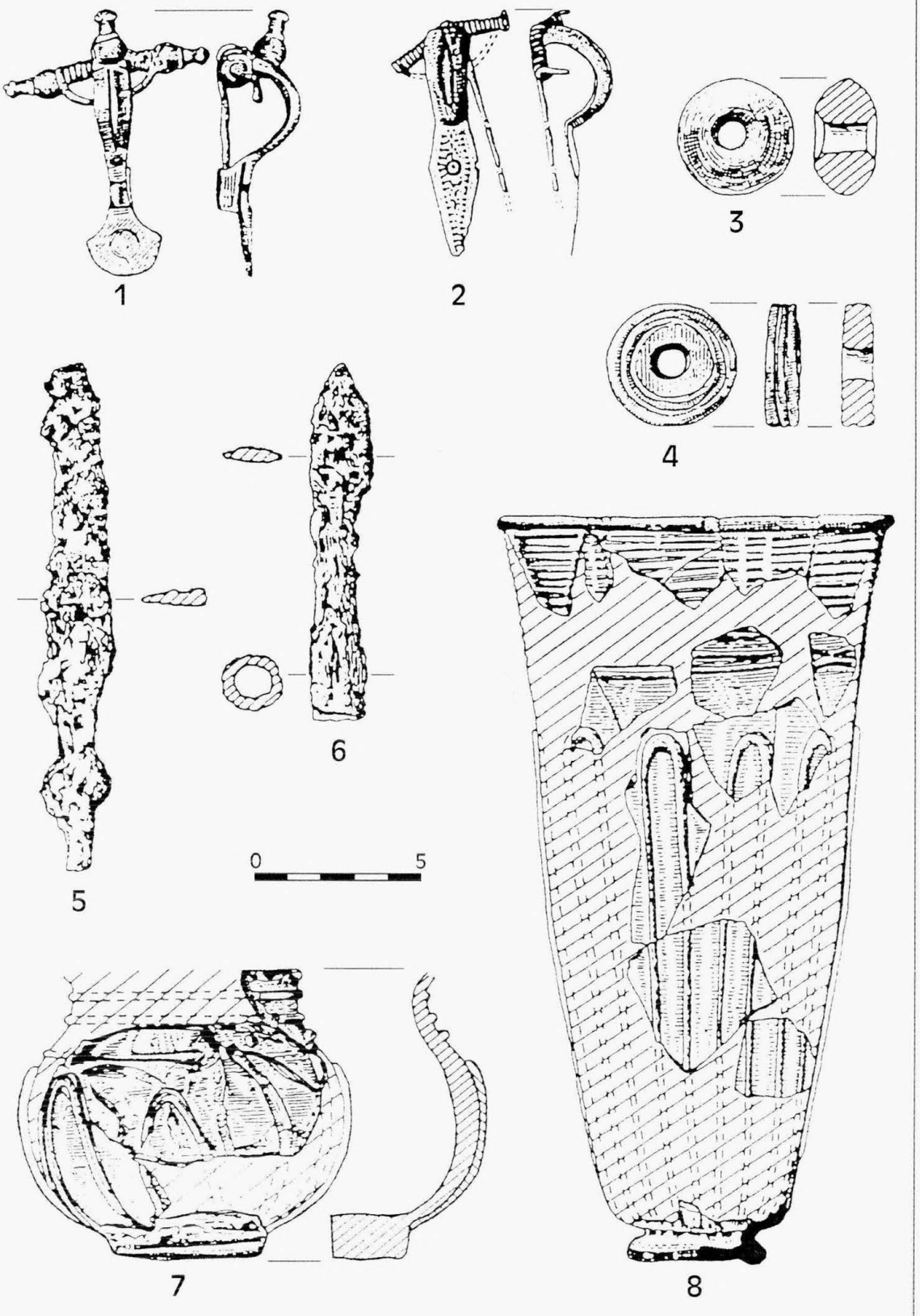
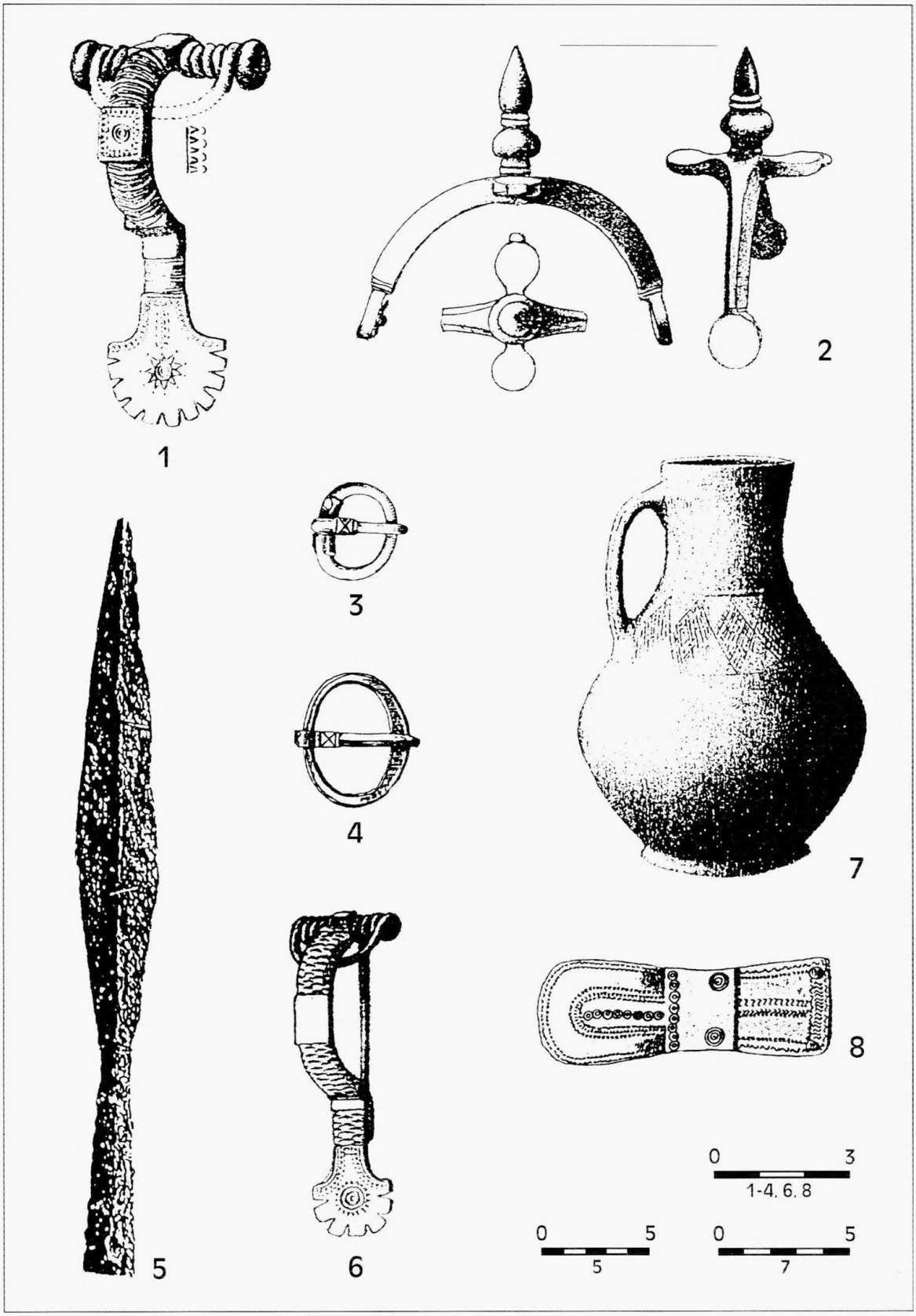


5

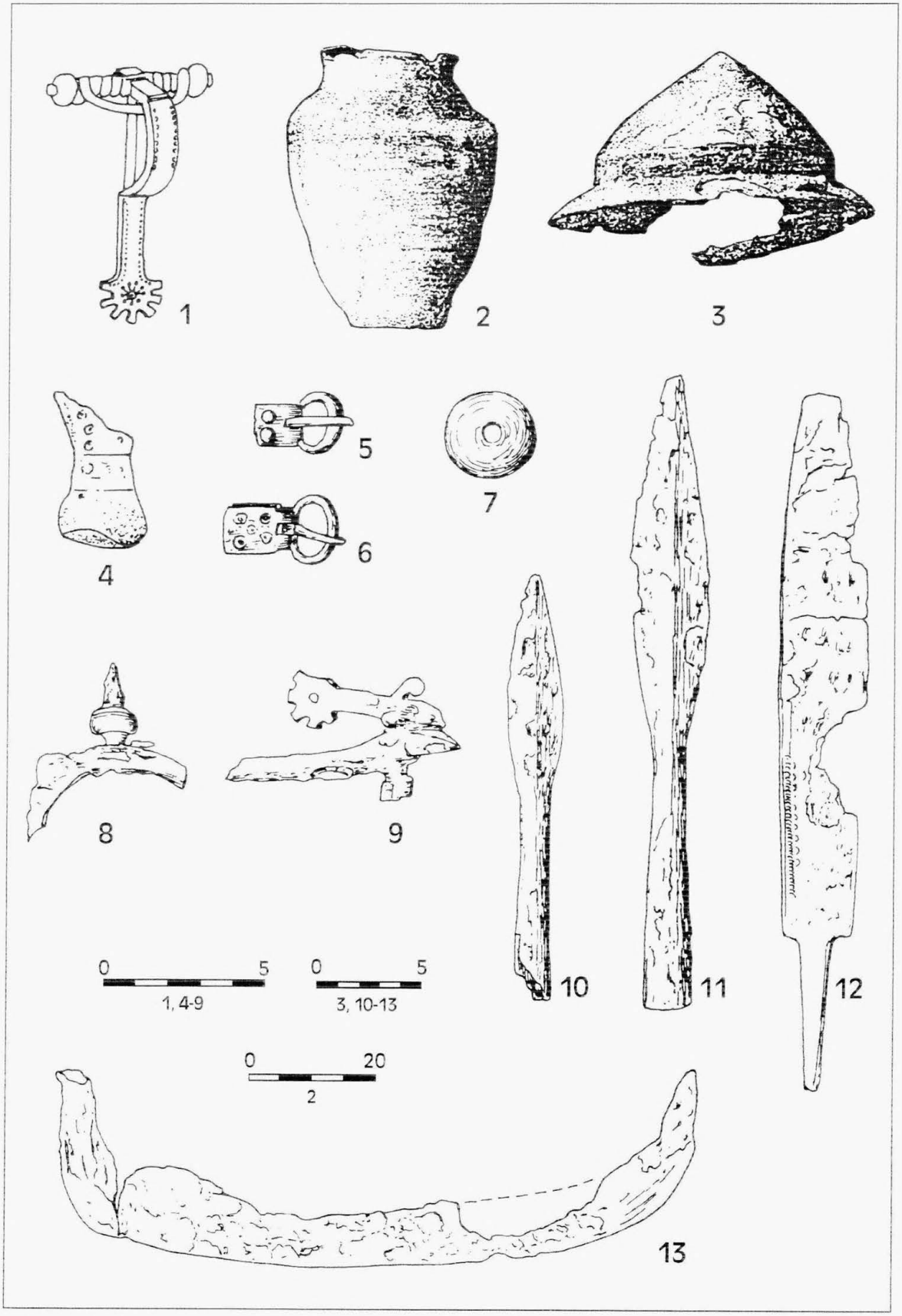
Pl. XXXVI. Pruszcz Gdański, site 5, grave 24 (acc. to M. Pietrzak 1998).



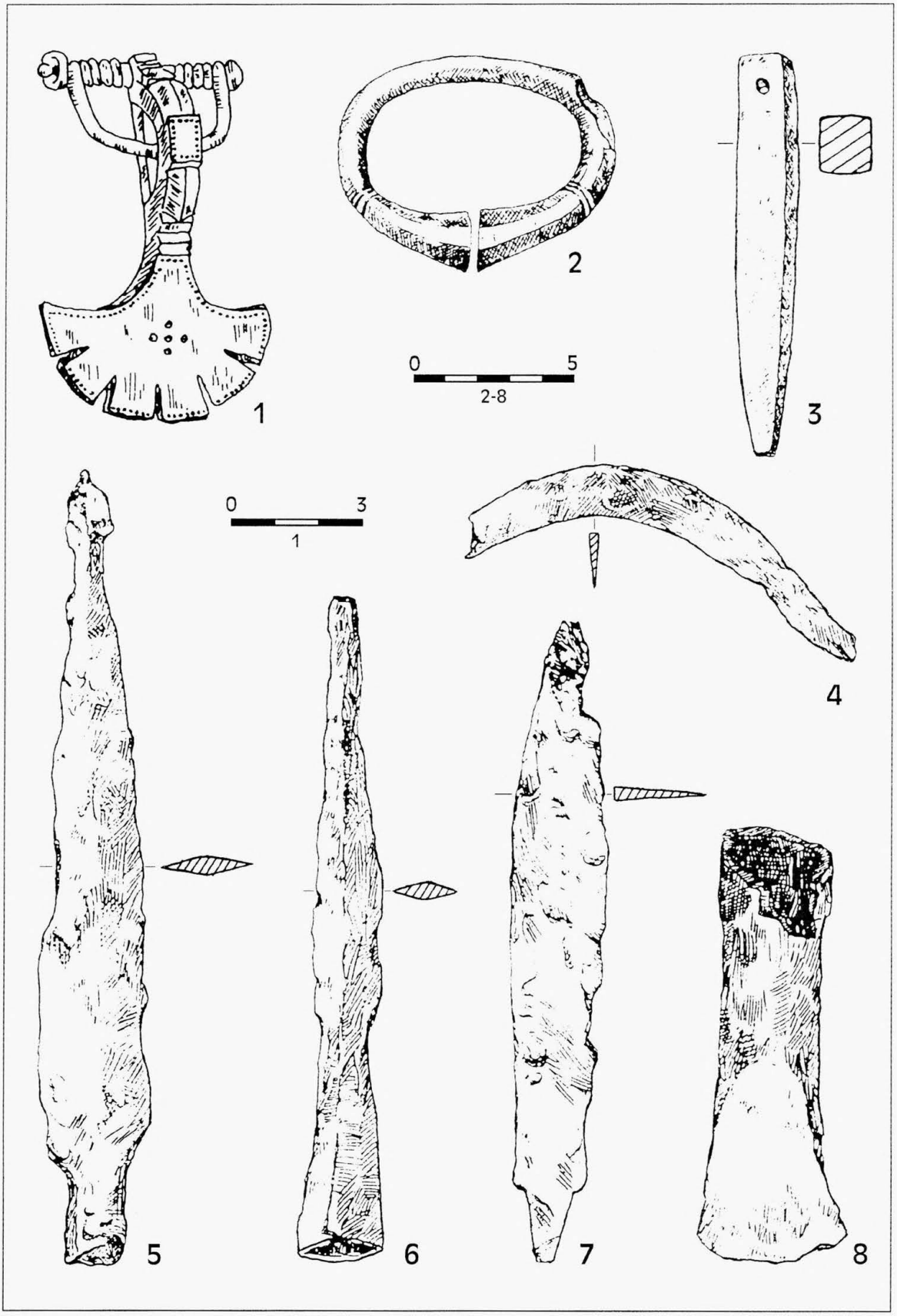
Pl. XXXVII. Dębczyno, site 3, feature 300 (acc. to K. Godłowski 1981).



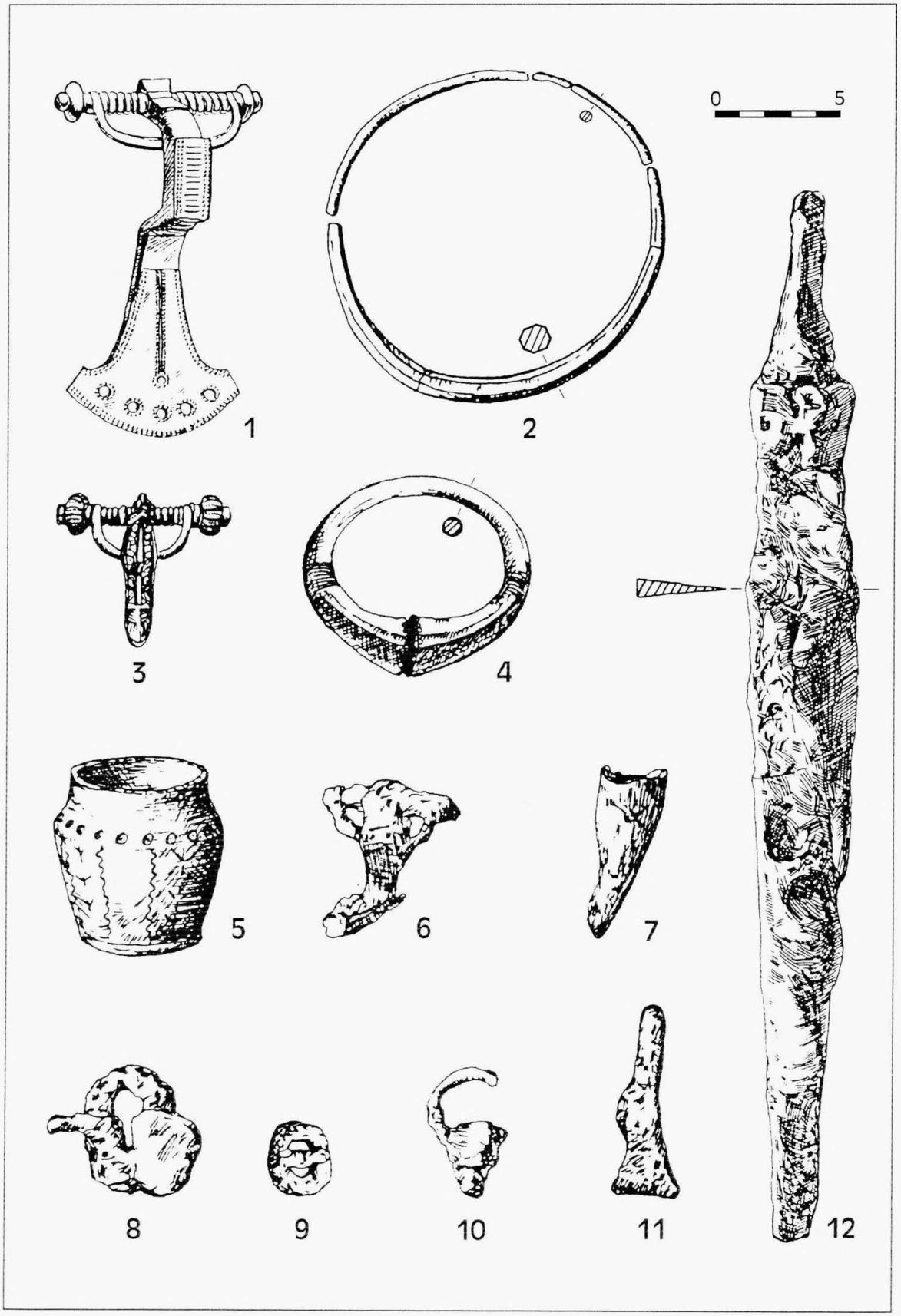
Pl. XXXVIII. 1–3, 7 – Warnikam, grave 31; 4–6, 8 – Kovrovo, grave 164 (acc. to O. Tischler & H. Kemke 1902; C. Günther & A. Voss 1880).



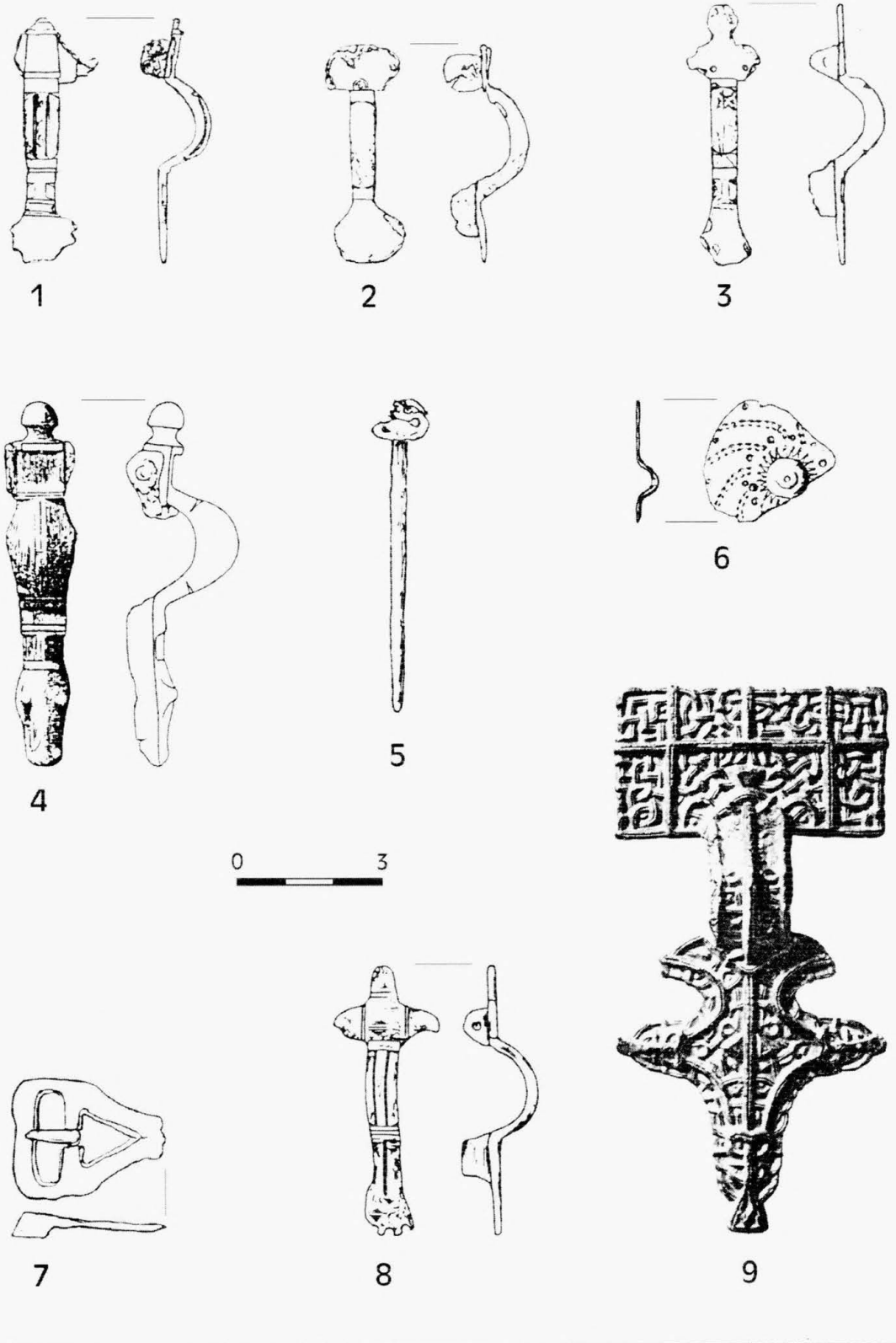
Pl. XXXIX. Grebieten, grave S.43 (acc. to J. Heydeck 1888).



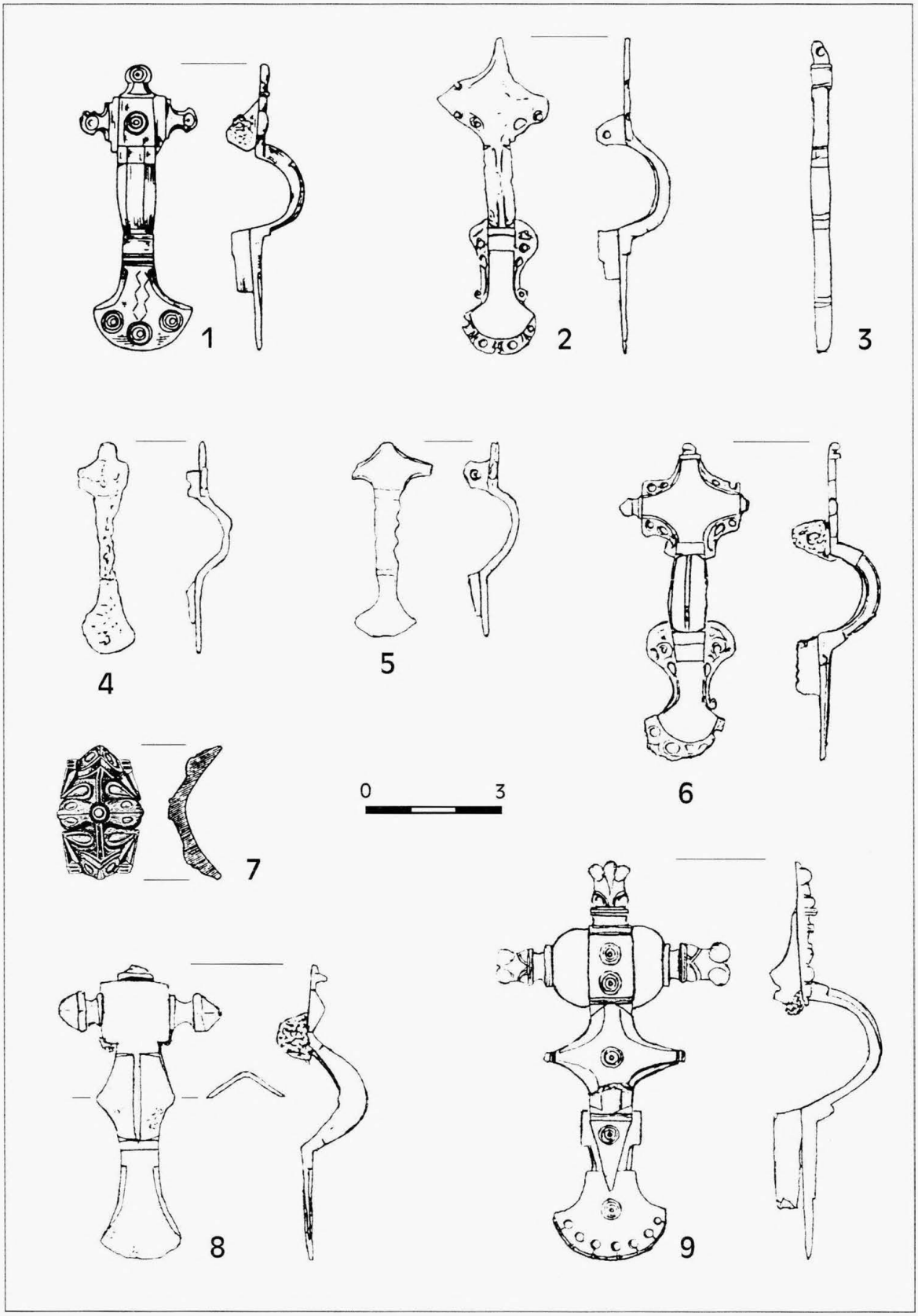
Pl. XL. Rudaičiai, grave 5 (acc. to L. Nakaitė 1964; M. Michelbertas 1968).



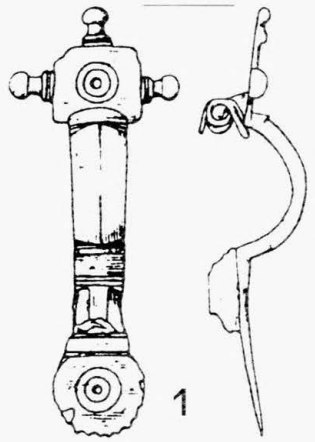
Pl. XLI. Ģeistauti, grave 2 (Latvijas PSR ... 1974).



Pl. XLII. 1–7 – Horr, grave; 8–9 – Hovland, grave (?) (acc. to H. Shetelig 1906; B. Hougen 1967 and the author).



Pl. XLIII. 1 – Ogna; 2–5 – Varhaug, grave; 6 – Tegle, barrow; 7–8 – Ådland, barrow; 9 – Øvre Stoveland, barrow (acc. to J. Reichstein 1975 and the author).



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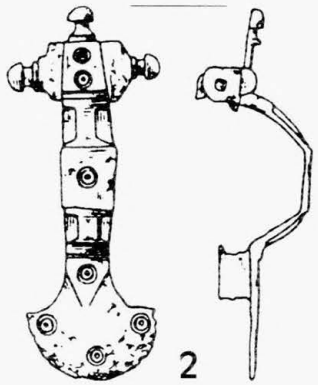

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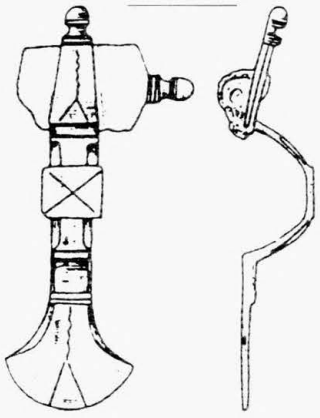

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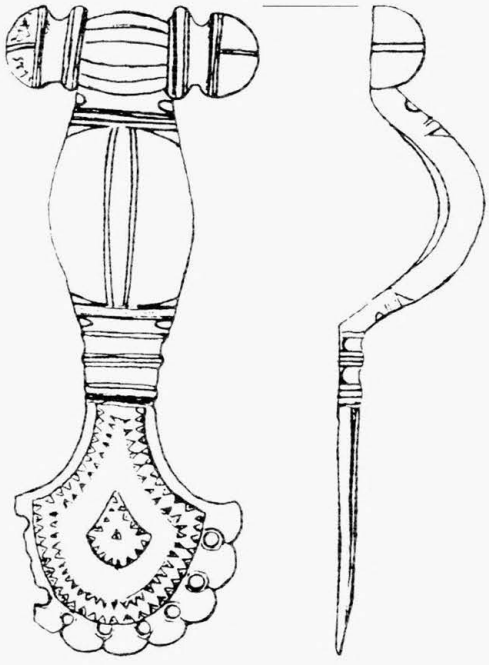

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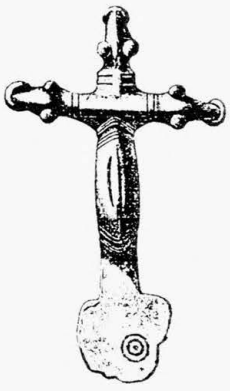

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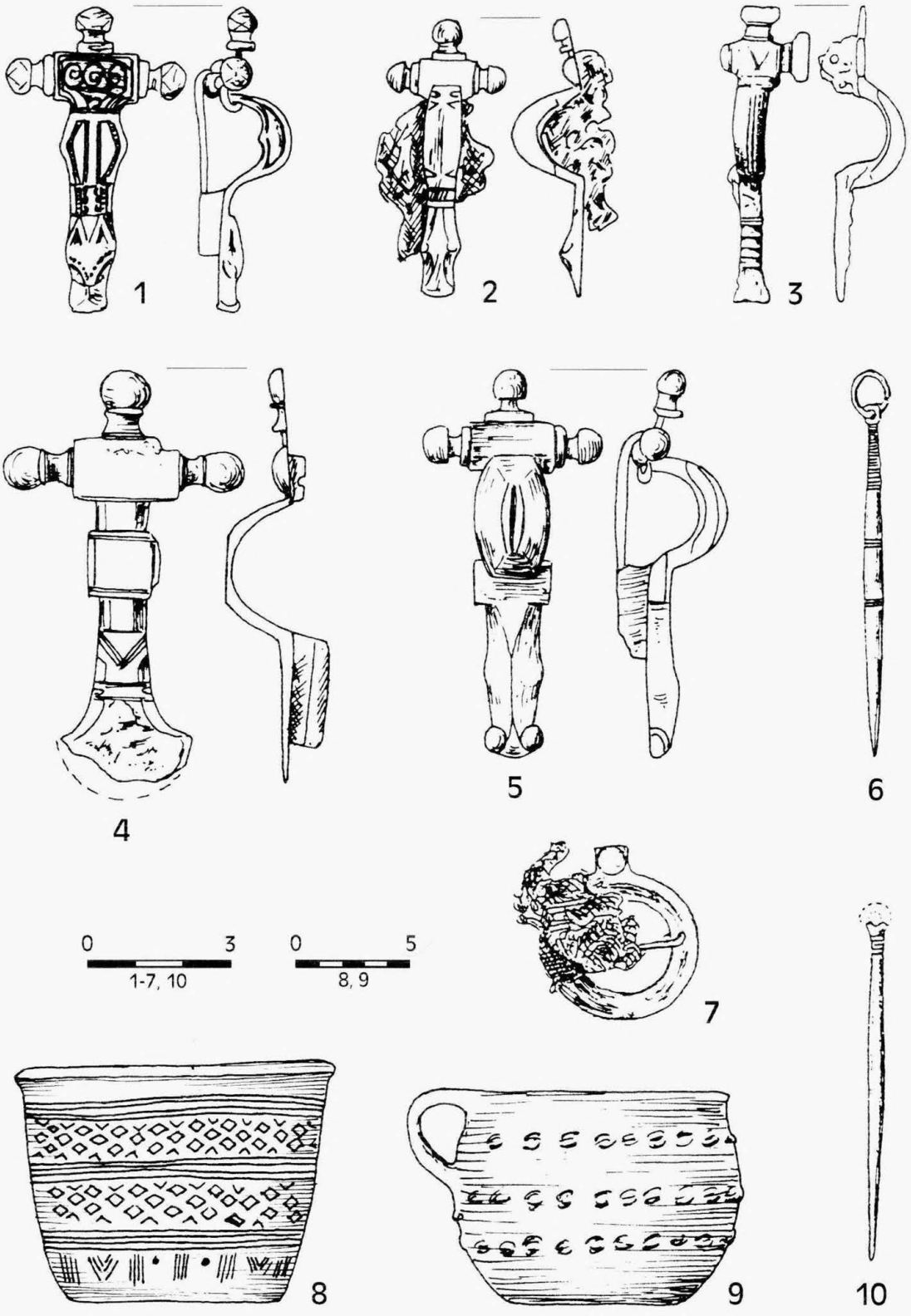
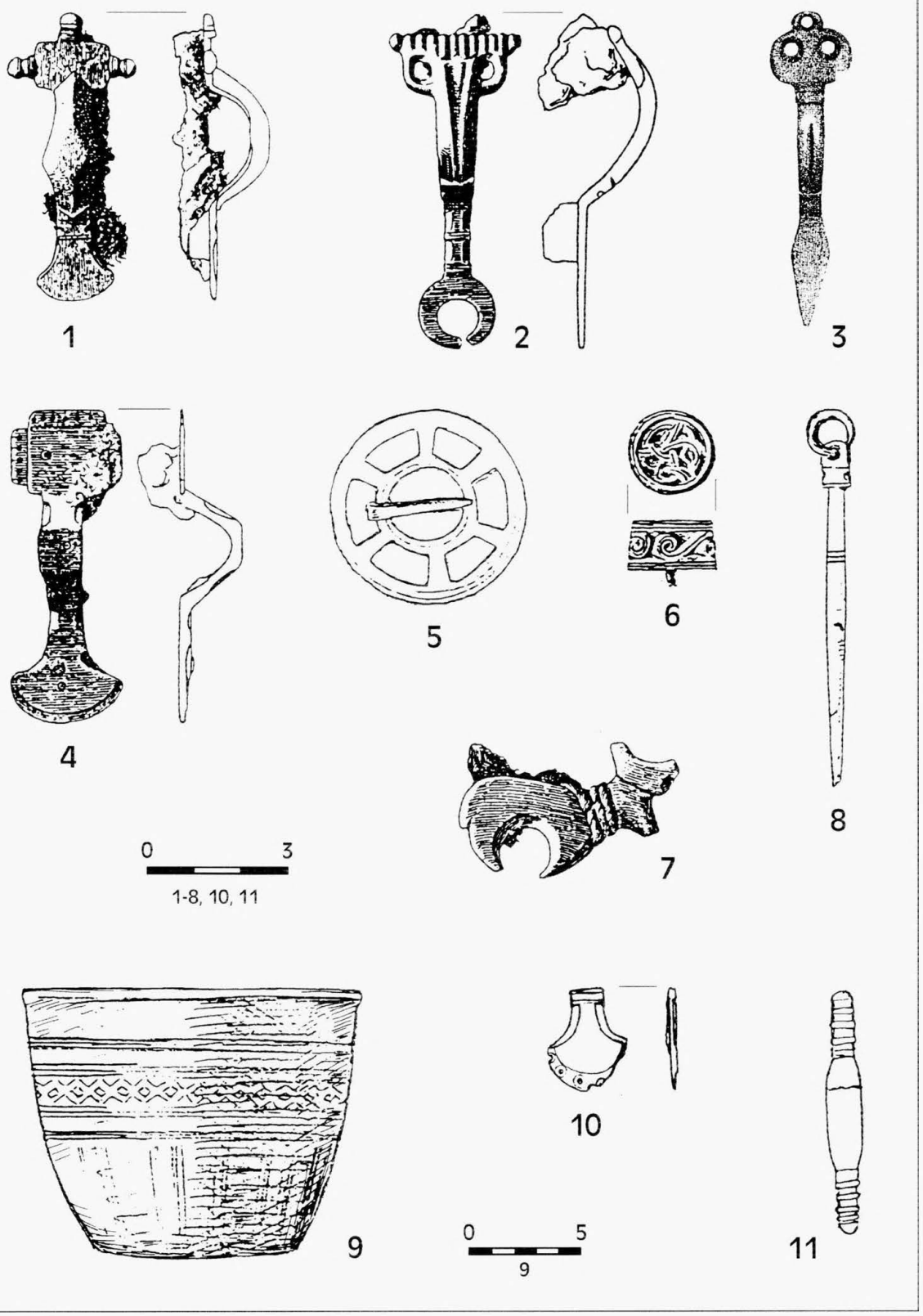
Pl. XLIV. 1 – Råstad; 2 – Søndre Gammelsrød, barrow; 3 – Skrøppa, barrow; 4, 6 – Bø, barrow; 5 – Isgärde (acc. to J. Reichstein 1975; N. Åberg 1919 and the author).

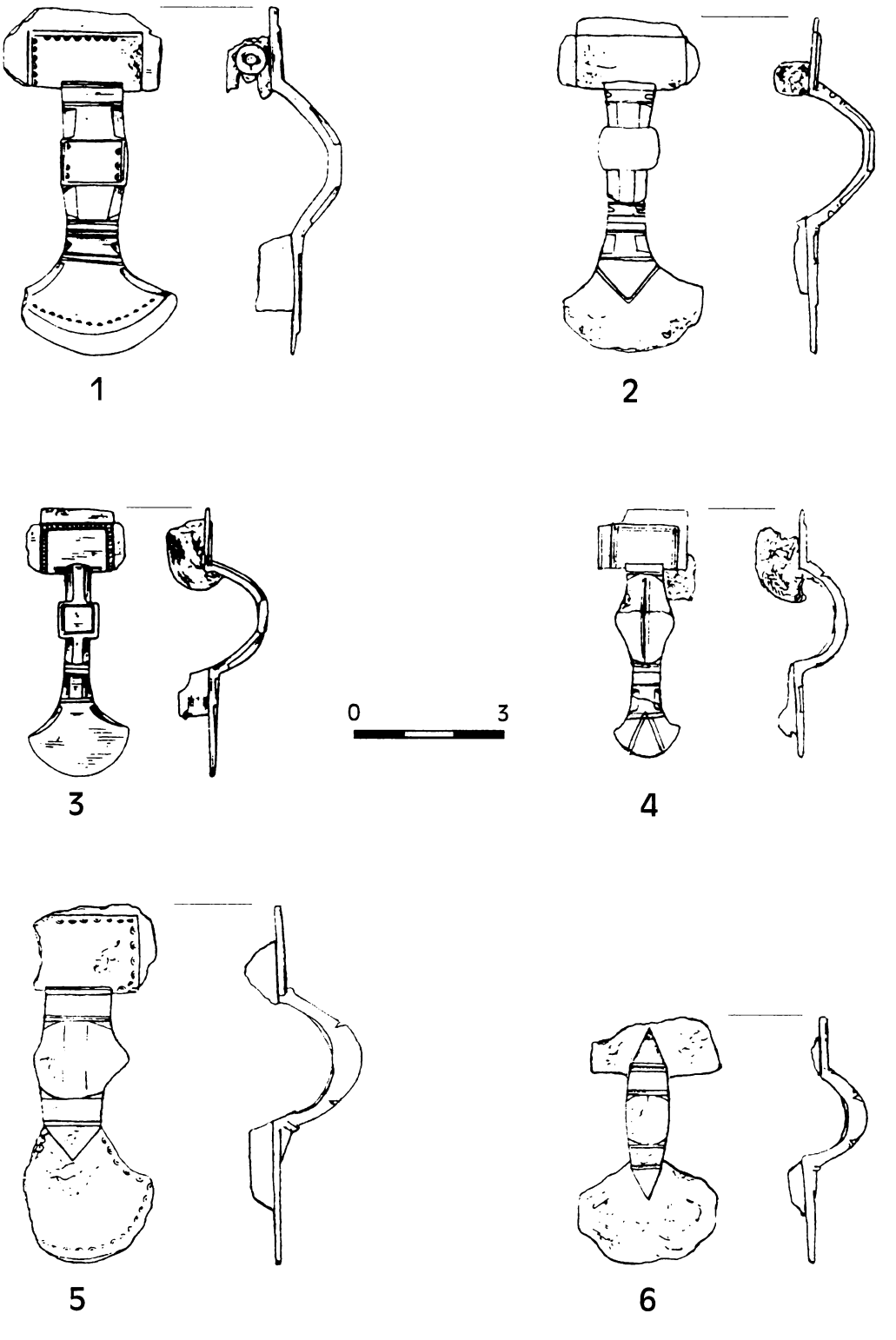


Pl. XLV. Lunde "Spanskslottet", barrow (acc. to H. Shetelig 1906 and the author).

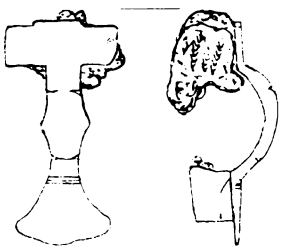


Pl. XLVI. 1–9 – Lunde, grave; 10–11 – Grindheim, barrow, grave II (acc. to H. Shetelig 1906; 1911 and the author).

Pl. XLVII. 1 – Horr; 2–7 – Kvassheim, grave 126; 8–13 – Rivaland i Årdal, barrow (acc. to G. Lillehammer 1996; E. Bakka 1973 and the author).



Pl. XLVIII. 1 – Moi Øvre, grave; 2 – Torper, barrow; 3 – Døso, barrow 2, grave II; 4 – Løn, grave; 5–6 – Ramberg Sandholmen, barrow 2 (acc. to the author).



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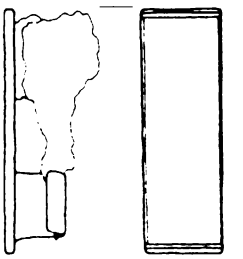

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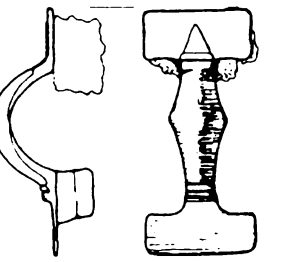

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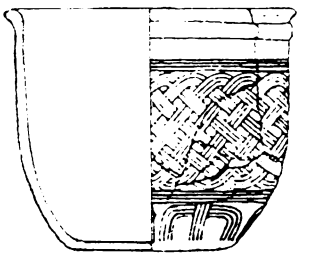

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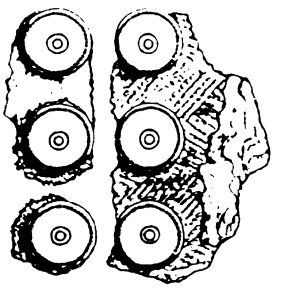

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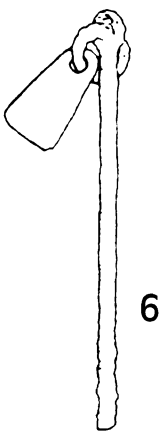

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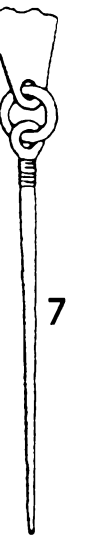

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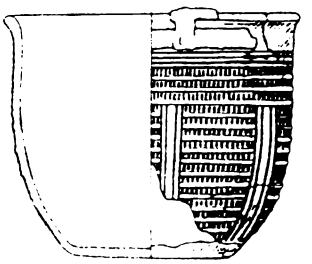

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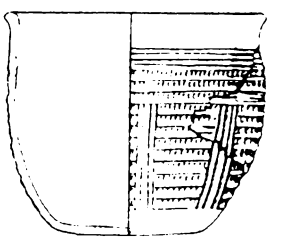

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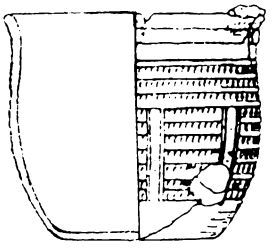

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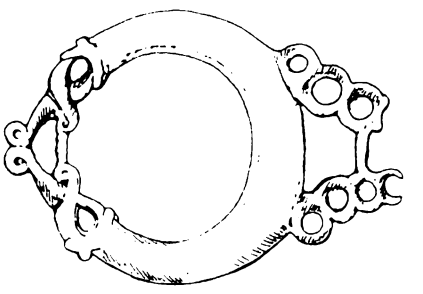

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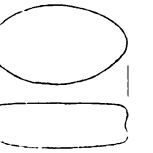
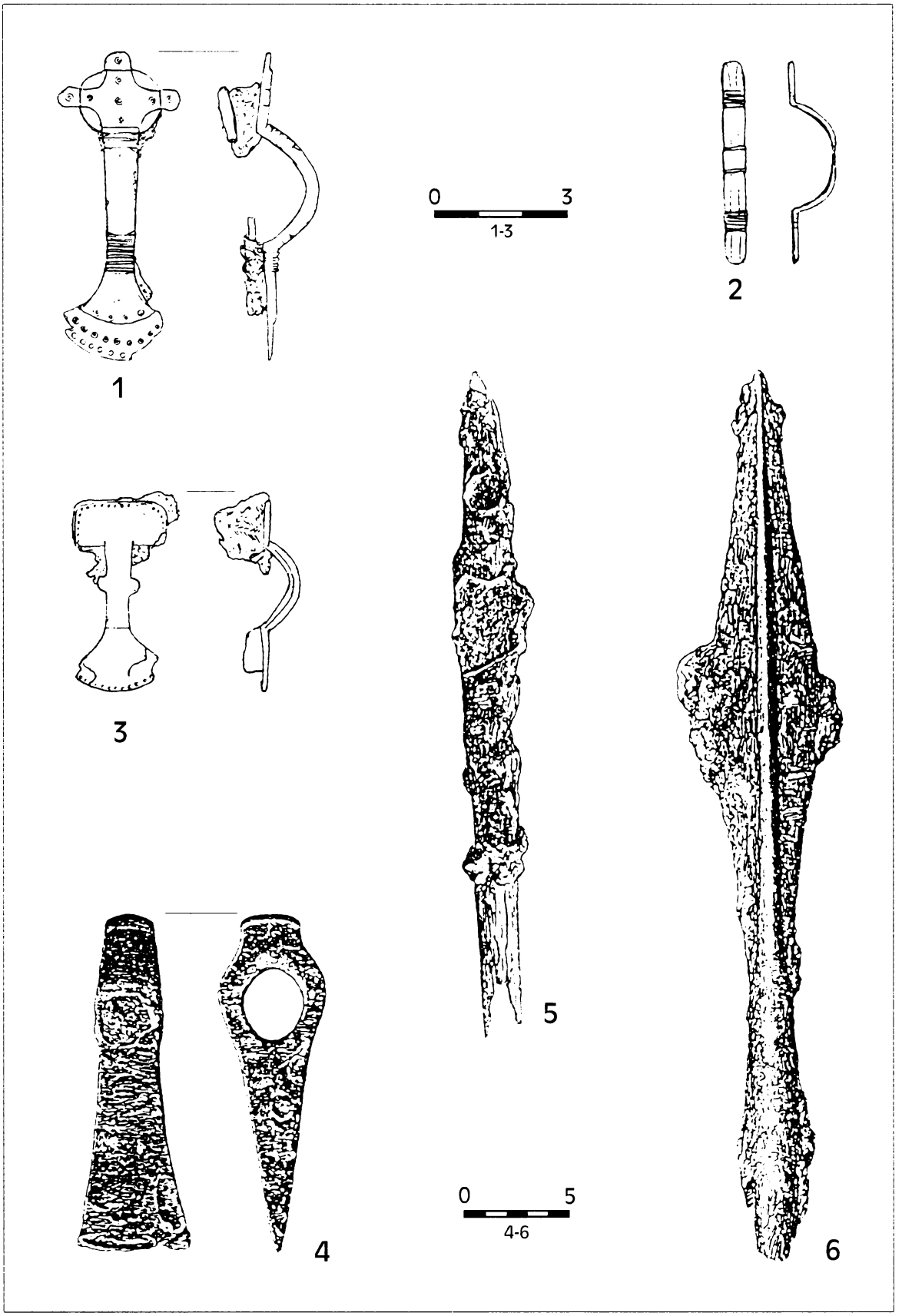
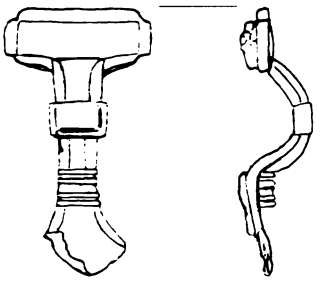


12

Pl. XLIX. Bolstad, barrow, grave II (acc. to B. Magnus, O. Møllerop & T. Sjøvold 1966).



Pl. L. Nordre Birkjeland, barrow (acc. to H. Shetelig 1916/17 and the author).



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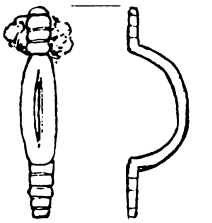

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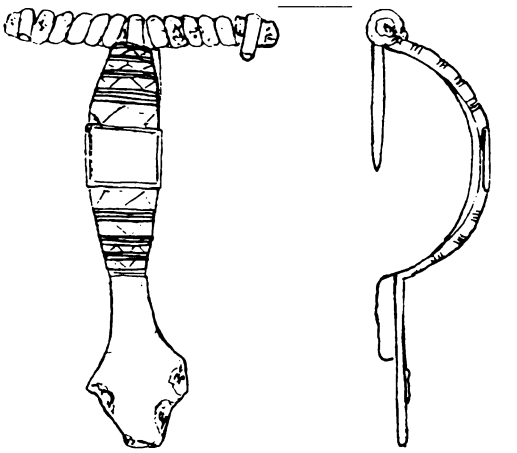

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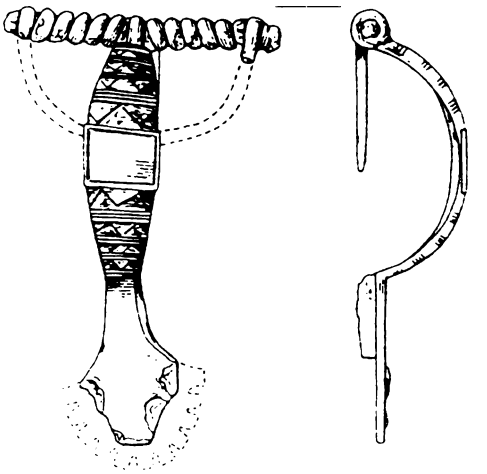

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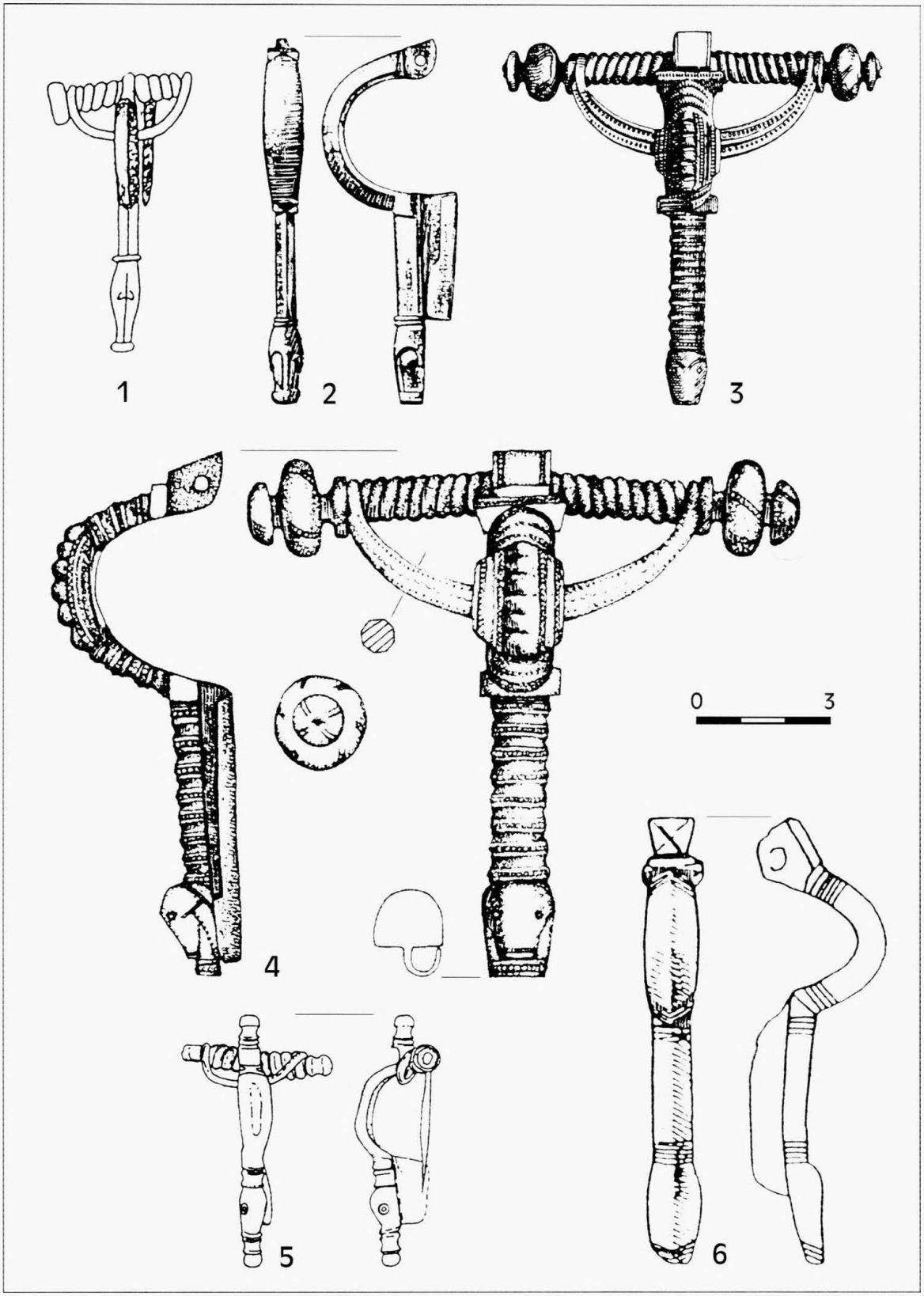
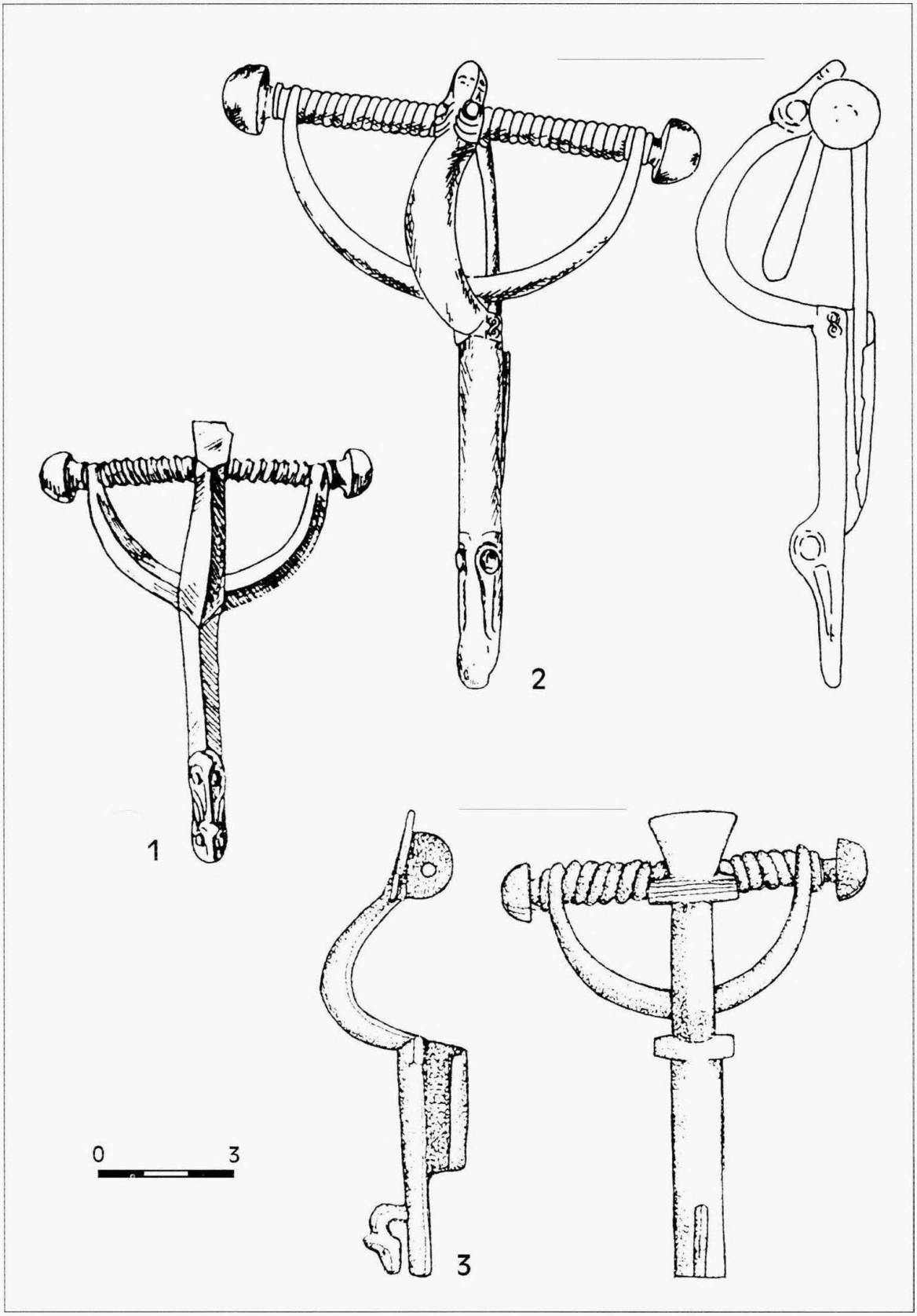
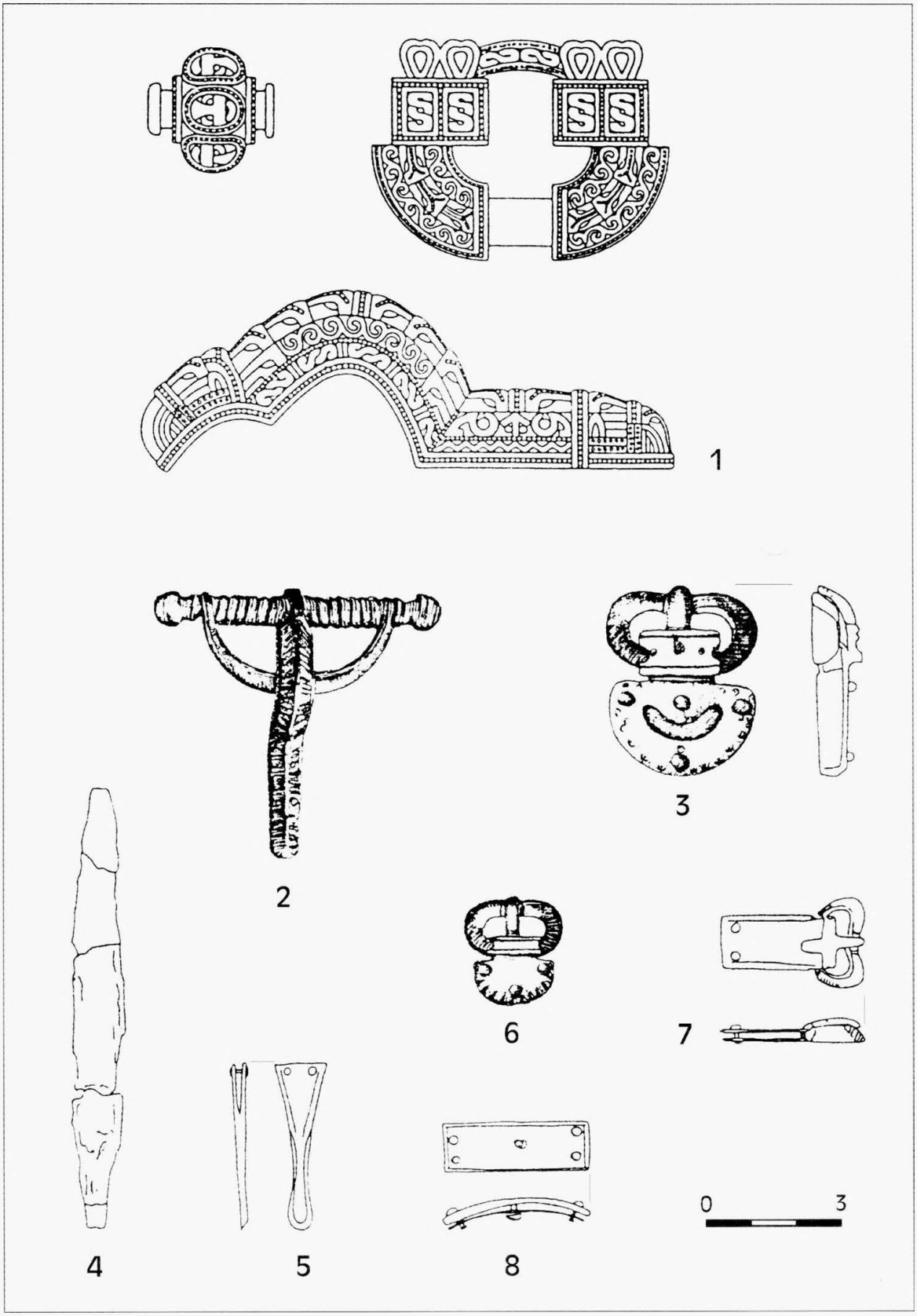
Pl. LI. 1–2 – Nedre Stedje, barrow, grave II; 3–4 – Li, barrow (acc. to the author).



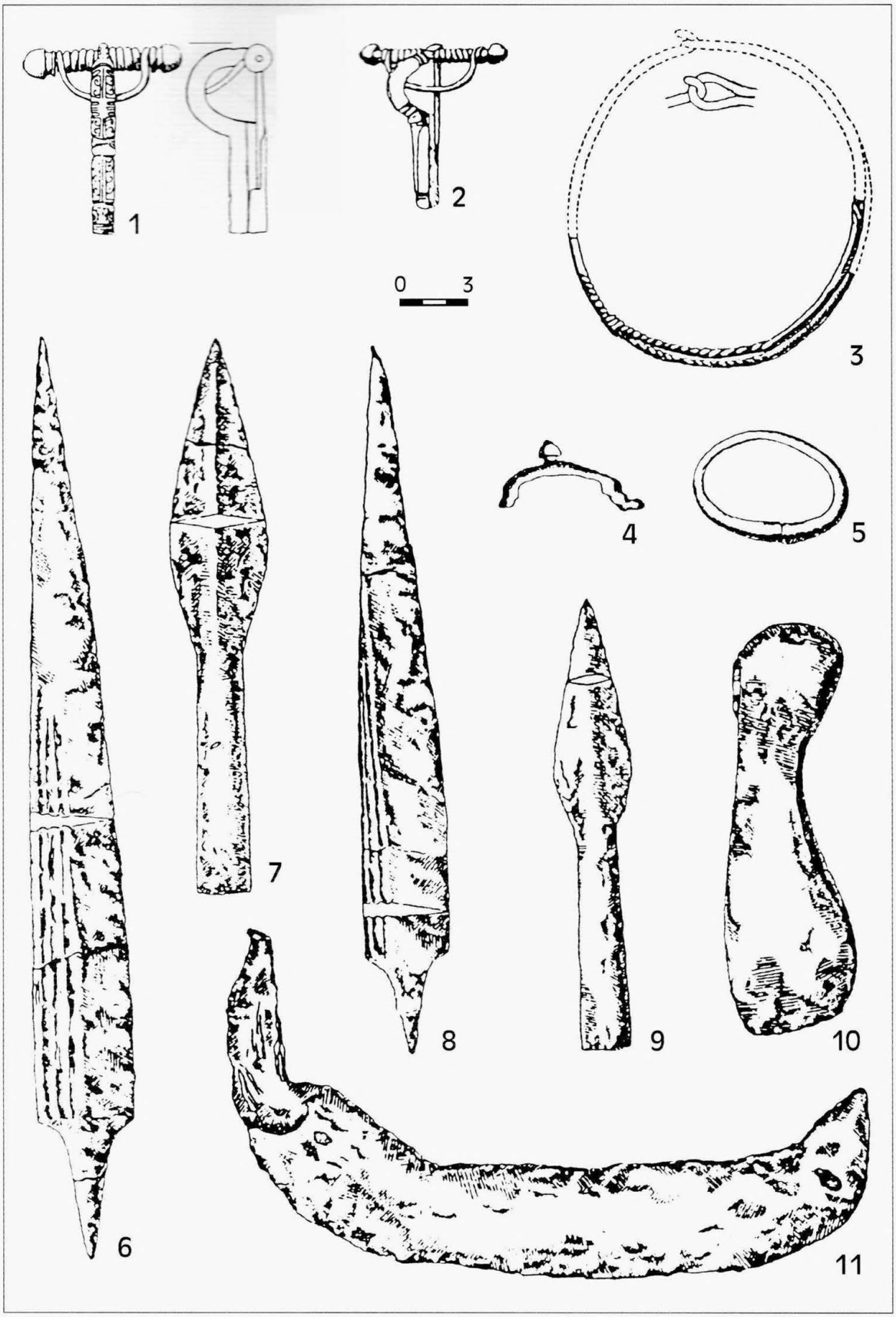
Pl. LII. 1 – Mrągowo; 2 – Öland, unknown site; 3 – Rubokai, grave 41; 4 – Plinkaigalis, grave107; 5 – Bornholm, unknown site; 6 – Ošenieki (acc. to N. Åberg 1919; 1923; A. Bezzenberger 1909d; V. Kazakevičius 1983; O. Klindt-Jensen 1957; A. Vasks & I. Virse 1990).



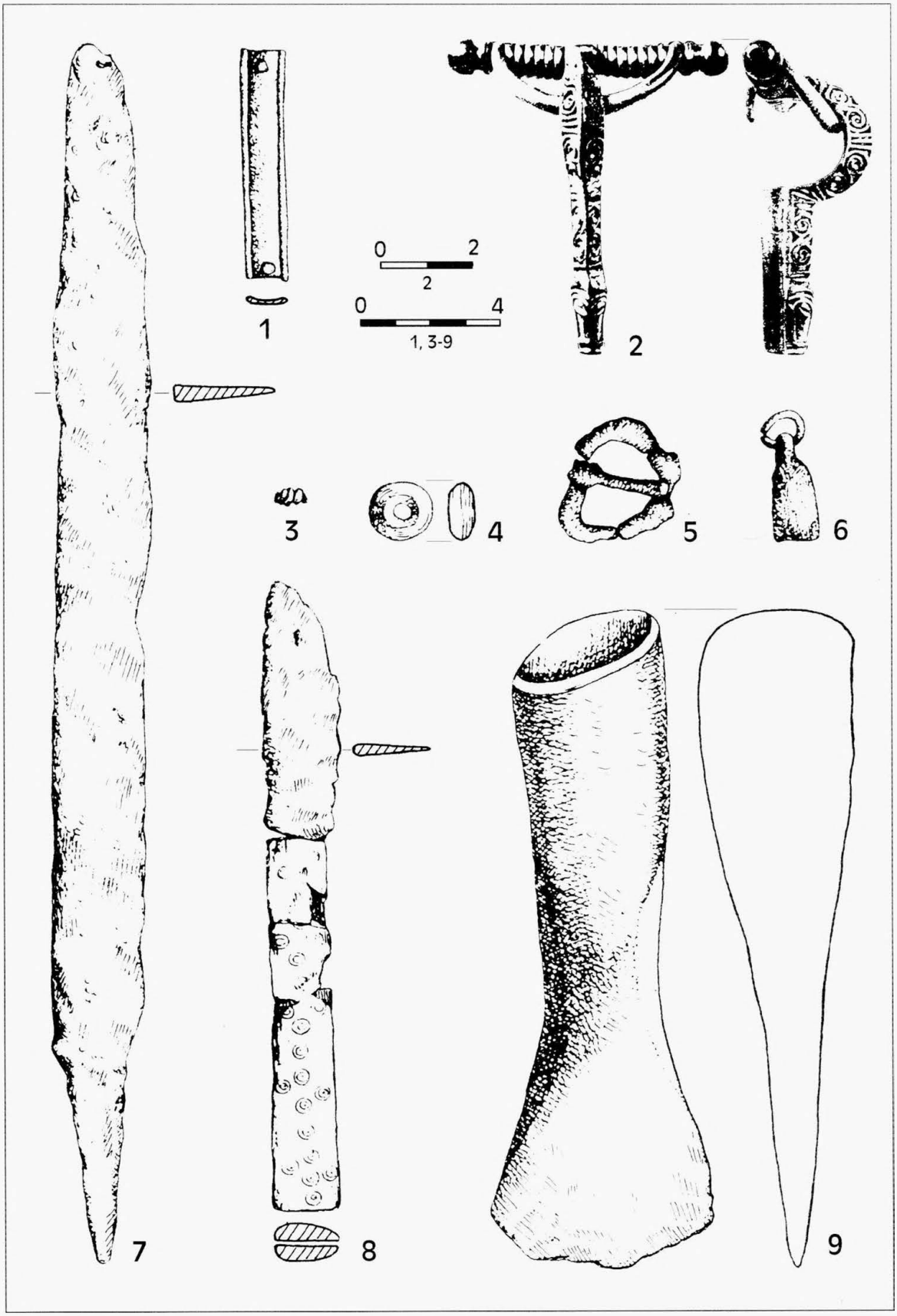
Pl. LIII. 1 – Krustpils Mantas; 2 – Jauneikiai, grave 390; 3 – Pagrybis (acc. to Latvijas PSR ... 1974; I. Vaškevičiūtė 1987; L. Vaitkunskienė 1995).



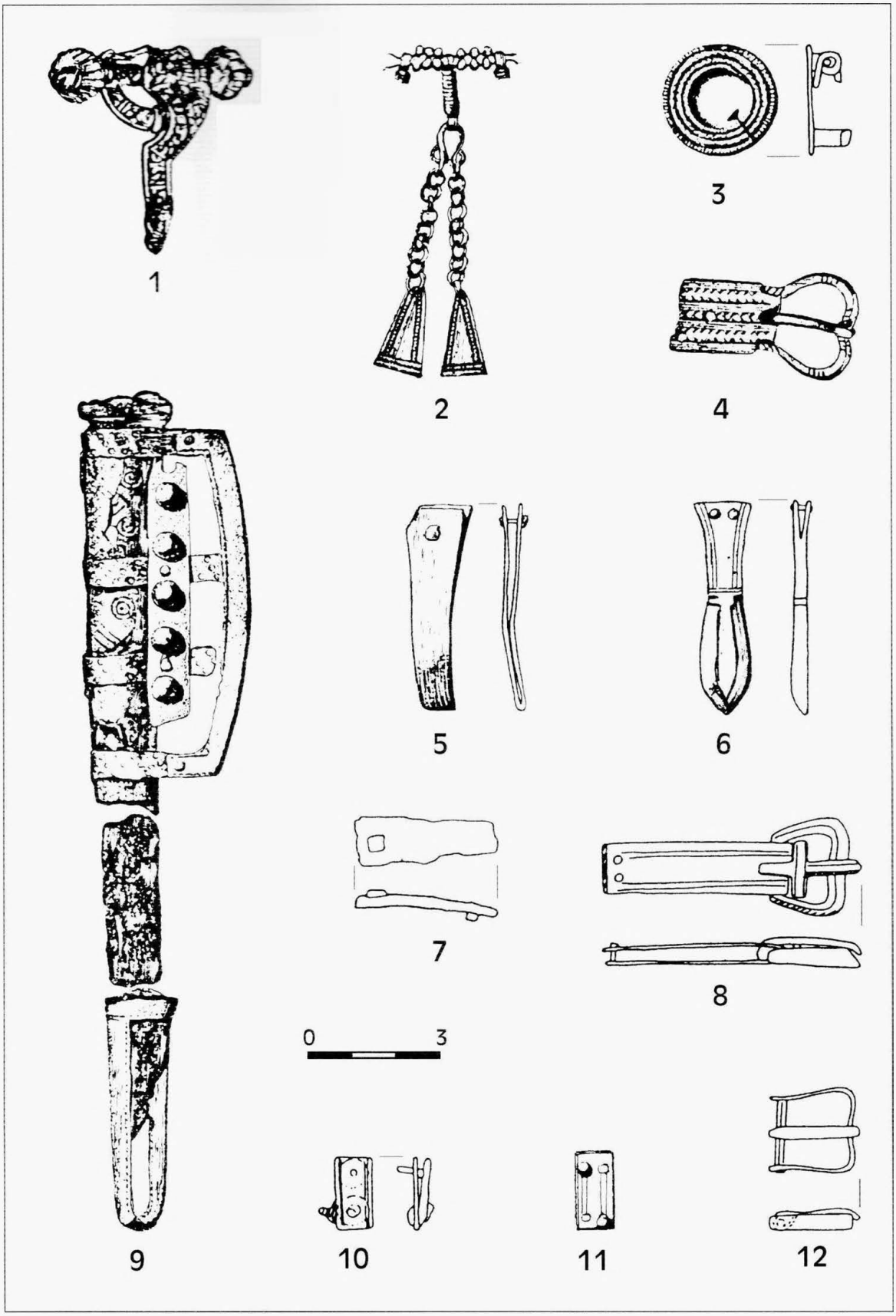
Pl. LIV. 1 – Tumiany, loose find; 2–8 – Tumiany, grave 150 (acc. to E. C. G. Oxenstierna 1940; J. Heydeck 1895; F. Jakobson's archive).



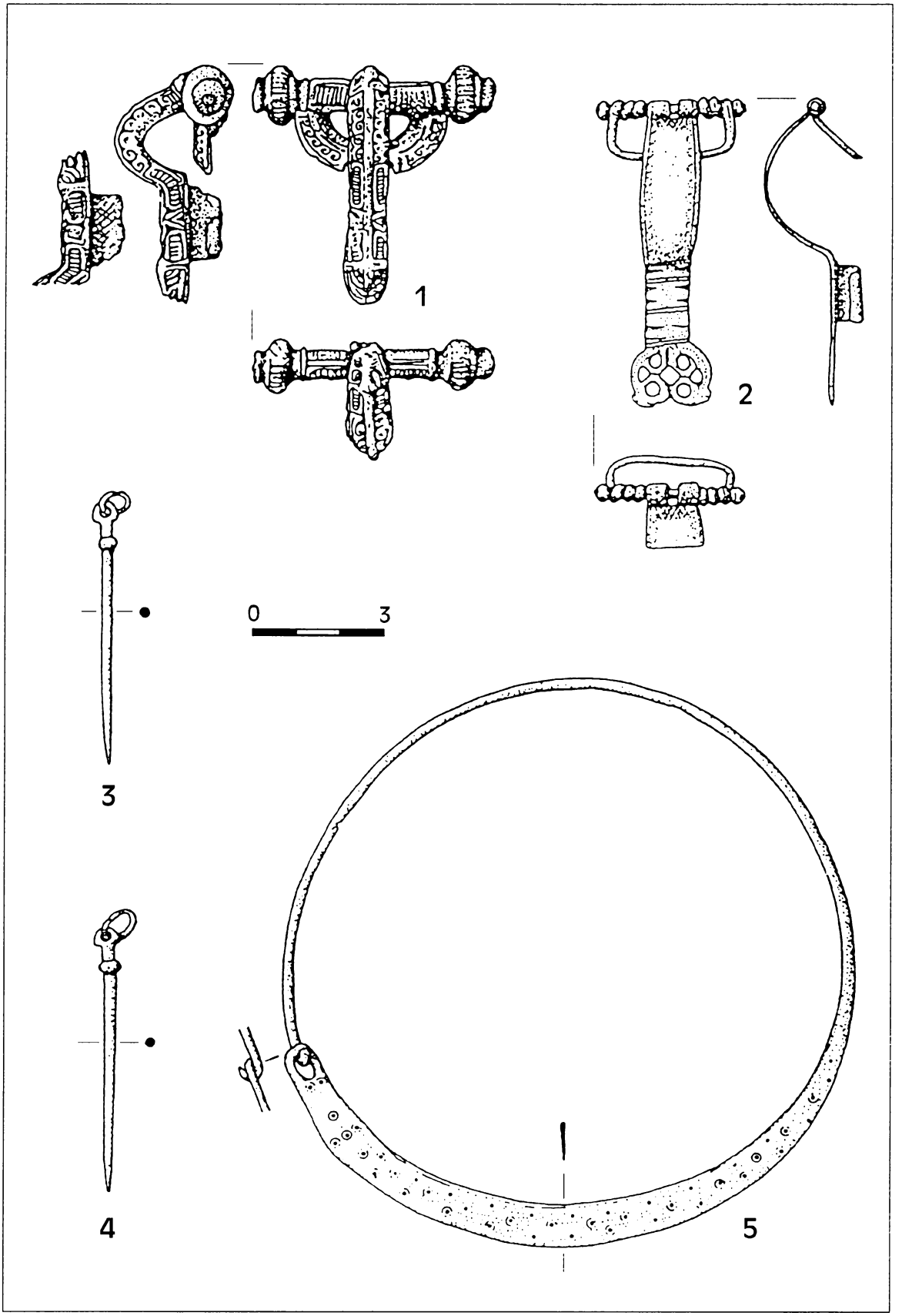
Pl. LV. Vidgiriai, grave 2 (acc. to V. Šimėnas 1996).



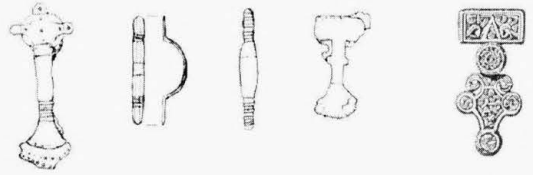
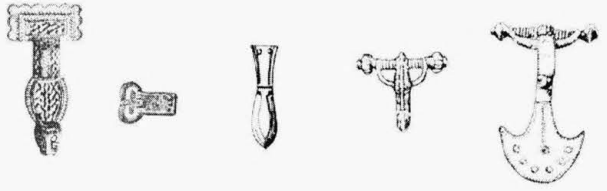
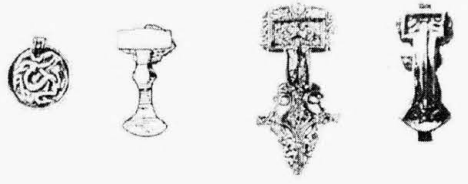
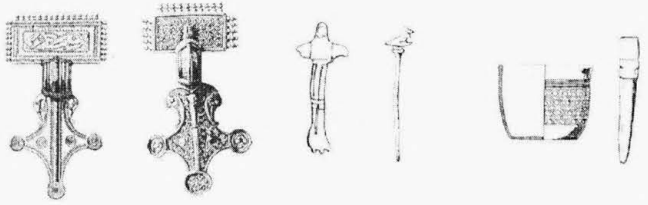
Pl. LVI. Plinkaigalis, grave 106 (acc. to V. Kazakevičius 1983).

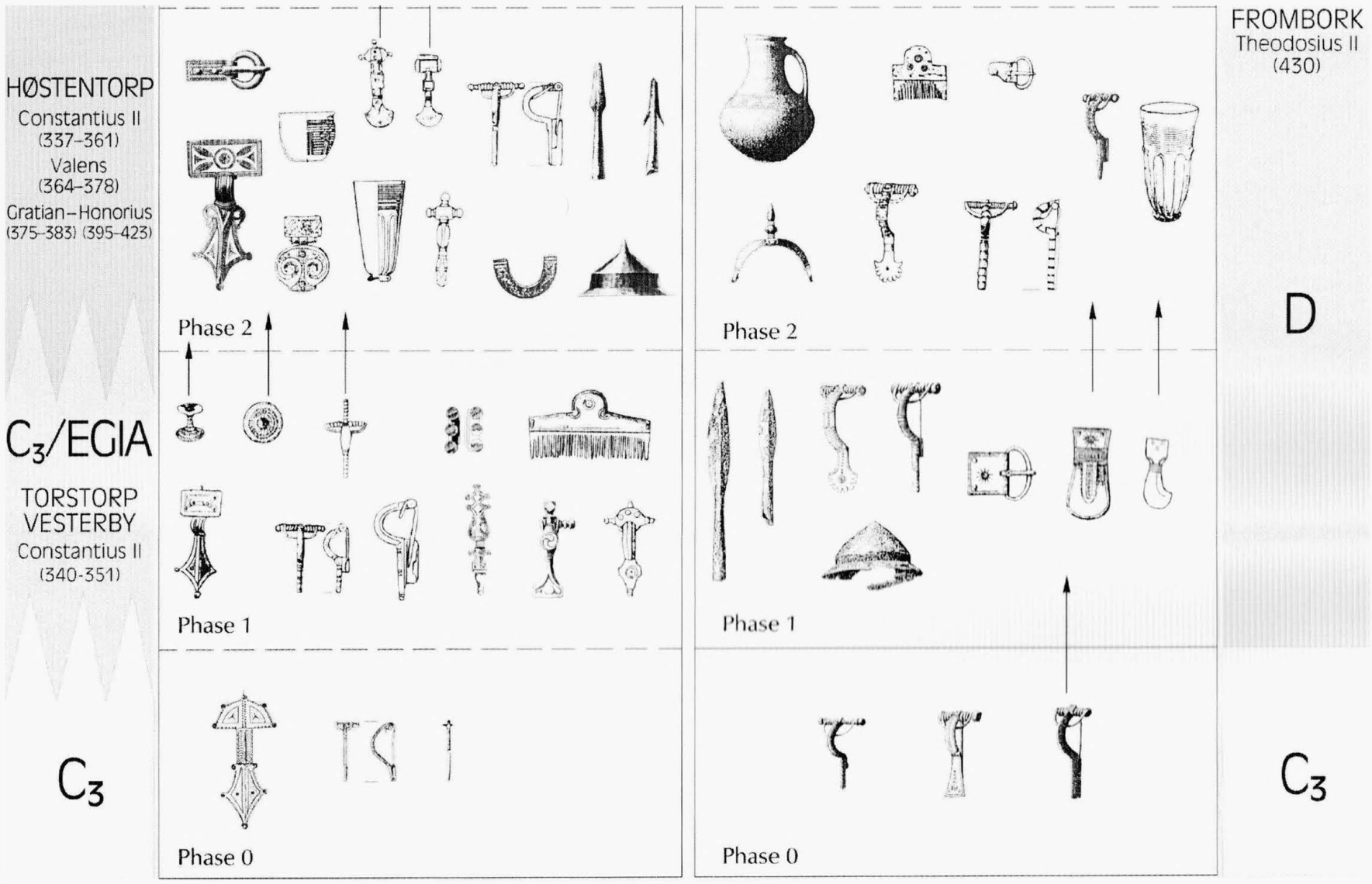


Pl. LVII. Tumiany, grave 38 (acc. to J. Heydeck 1895; F. Jakobson's archive).

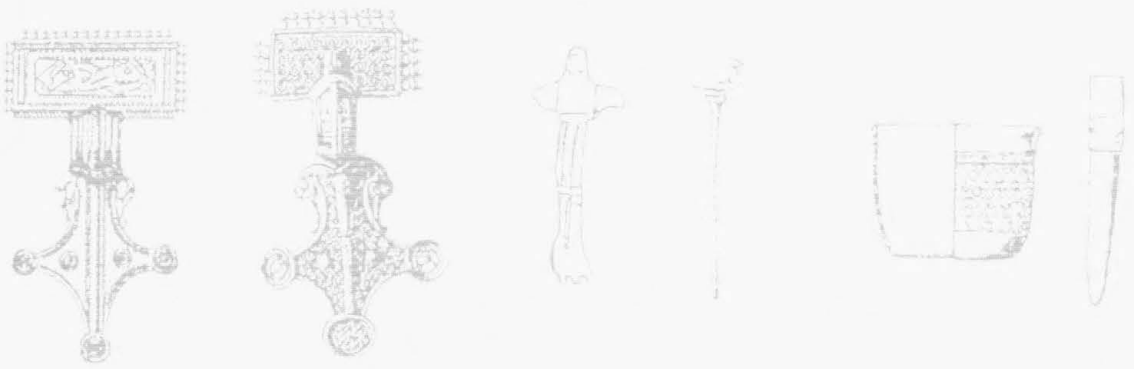


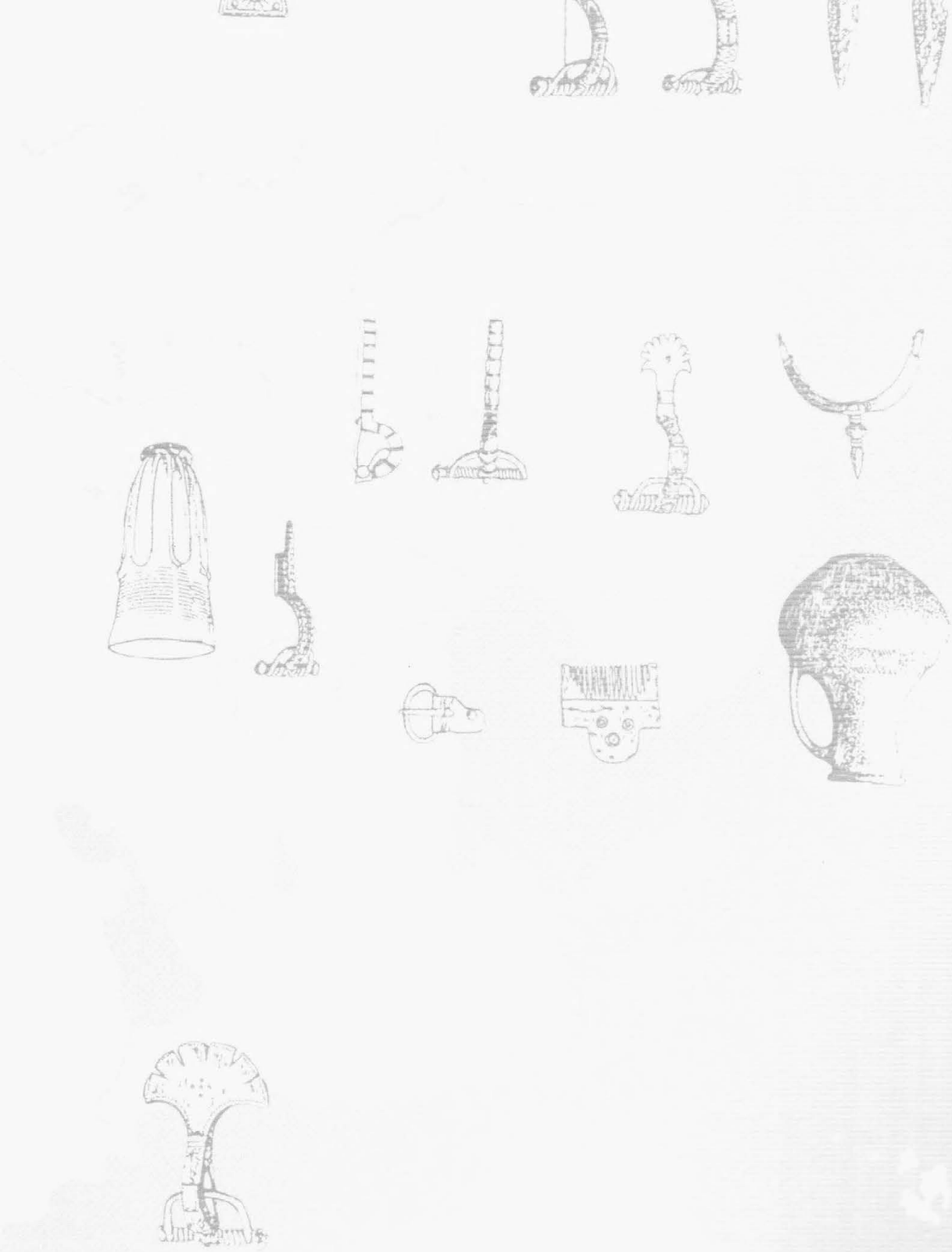
Pl. LVIII. Altenerding, grave 421 (acc. to W. Sage 1975).

	SCANDINAVIA	THE BALT LANDS	
LGIA	 Phase 5	 Phase 5	E
	 Phase 4	Phase 4	D/E
EGIA	 Phase 3	Phase 3	



Pl. LIX. A synchronisation diagram of main chronological indicators in Scandinavia and the Balt lands.





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